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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

WORCESTER STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1935

DEPARTMENT OF MENTAL DISEASES

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DEPARTMENT OF MENTAL DISEASES
GARDNER STATE HOSPITAL
EAST GARDNER, MASS.

WORCESTER STATE HOSPITAL

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TRUSTEES' REPORT

To His Excellency the Governor, and the Honorable Council:

The Trustees of the Worcester State Hospital respectfully submit the 103d annual report of the hospital together with the report of the Superintendent, Dr. William A. Bryan, and report of the Treasurer, Miss Margaret T. Crimmins, and other statistical information.

One of the most forward looking steps that has been taken in the Massachusetts State Hospital System is the inauguration of an eight-hour day for ward employees. Work with mental patients is a constant strain upon the patience and spirit of kindness of the individual. Shorter hours make possible a higher standard of service to the patient than could possibly be the case when ward personnel is on duty ten hours. The Commonwealth will undoubtedly save more than the cost of the additional people needed in the eventual increase in the discharge rate of patients. The eight-hour day has proven to be very satisfactory in this hospital, and will in time fully justify the additional amount of money needed to effect it.

The ratio of ward personnel has been held at one to eight for some time past. If this meant that the actual number of employees on duty was one to eight patients, it would be an adequate number but when vacations, sickness, and days off are taken out, it leaves our wards with an insufficient number of employees. This board earnestly recommends that some special provision be made for relief on those necessary days off.

A second innovation to which your board wishes to call attention and of which it desires to record its approval, is the centralization of the nursing service of the hospital under one head. The net result of this has been to equalize the standard of care of both men and women. A further development of this plan which the board approves enthusiastically, is the substitution wherever possible of specially trained graduate nurses for attendants in the care of our patients. This, in our opinion, is a progressive step which brings the hospital to a higher level of nursing care. In this connection the board would point out that all graduate nurses are not qualified by temperament or education to carry on successful mental nursing. The graduate from the general hospital is not competent to do such nursing until she has had special experience. Therefore, the board believes that the policy of hiring graduate nurses who have had mental experience wherever they may be found, is for the best interests of our patients.

The appropriations for repairs have been so inadequate for several years past that the buildings have not been kept up to the highest stage of efficiency. A policy of retrenchment along these lines will sooner or later build up a liability for

the Commonwealth which will cost much more than if the repairs were properly taken care of as the need develops. The State has a substantial investment in this hospital, and a sufficient amount of money should be appropriated for paint, construction materials and labor to protect this investment. If this is not done it will prove costly in the end.

Certain improvements have been completed during the year which are particularly gratifying because they lessen the fire hazard. The installation of a stand pipe with a capacity of 1,000,000 gallons will give additional volume of water when needed for fire protection. Fireproof stairways have been installed, the rewiring of the hospital has been completed, a sprinkler system installed in the attics of the main building and Summer Street. There are a number of other projects urgently needed which would give additional protection.

This board has called attention to the condition of the floors of the hospital and in 1935 an appropriation was granted by the legislature to renovate the Quinby wards. This money is being used for replacement of the wood floors by cement construction. With this beginning the program should be continued until all ward floors in the institution are fireproof. A fire alarm system is badly needed. Under our present conditions we have no way of calling the employees on duty and designating the location of a fire.

The board respectfully calls the attention of Your Excellency to the urgent need of a laundry at this hospital. The present equipment is so old and antiquated that it is impossible for it to adequately carry the load and some relief should be given through the erection of a new building and new machinery.

The board wishes to again call the attention of Your Excellency to the loyalty and cooperation of the employees during the last year and we again register our approval of the policies and principles that have governed the operation of the institution for the past several years.

Respectfully submitted,

William J. Delahanty	John G. Perman
Anna C. Tatman	John L. Bianchi
Josephine Rose Dresser	George D. Morse
Howard W. Cowee	*Trustees.*

SUPERINTENDENT'S REPORT

To the Trustees of the Worcester State Hospital:

I herewith respectfully submit the following report of the hospital for the year ending November 30, 1935, it being the one hundred and third annual report.

As in former years the bulk of this report has been prepared by the Chiefs of the Services. The Superintendent's Report will deal with only certain phases of the individual summaries of the year's work. The most significant change in policy that has been inaugurated during the year is the direct result of the forty-eight hour week law. In my opinion this was a progressive step towards better service for the patient. It attracts to the service a better trained and more competent type of individual than we were able to do under the old regime. Eight hours is sufficiently long for any employee to remain on a ward of psychotic patients, and retain his poise and emotional balance. With an eight hour day increased demands for better treatment and more activity among the patients can be enforced. Out of this came the policy of the substitution of a graduate nurse for the attendant, at least so far as the charge positons are concerned. It is our belief that the graduate nurse from the general hospital with a special training in psychiatry, makes a better ward administrator than the individual without this educational background. Unemployment for nurses antedates the depression, and members of this profession may be attracted to psychiatric nursing if places were made for them in mental hospitals. I believe they would contribute a great deal in the process of raising the hospital from a custodial to a treatment level of care.

In line with this policy another innovation was made in that all nursing throughout the hospital was centralized under one head, the Director of Nursing. It has been a traditional custom in mental hospitals to have the women's wards in charge of the Superintendent of Nurses, who is required to be a graduate nurse. The men's wards were entirely independent of her supervision and were administered by a male supervisor. It is our belief that this violates two very important adminis-

trative axioms. There can only be one individual in charge of any group the members of which do the same type of work. It is an administrative absurdity to have a dual headed nursing service such as has been the custom in the past. Again it is not good psychiatric practice to have a double standard of care. If women require the service of graduate and student nurses, men are entitled to the same type of care.

A rating system for head nurses and charge attendants was inaugurated during the year. Through this system an attempt is made to evaluate the ability of each individual in charge of a ward. The ratings are made at six-month intervals and represent the combined estimate of several superiors of the individual who is being rated. Rating is made in conference, the employee is shown the grade and the deficiencies discussed with her. This promises to be an excellent method by which we can estimate the value of each employee in charge of an administrative nursing unit, which in this hospital, is the ward.

A continuation and elaboration of the policy of incorporating all industrial activity into the occupational therapy program was carried on during the year. It is our belief that all occupation, whether in the classroom or hospital industry, is a part of occupational therapy. The policy has also been developed of charging the nursing personnel with the responsibility of certain parts of this occupational therapy program. Psychiatric nursing should include certain phases of this kind of therapy. The nurse on the ward is responsible for all ward classes, of housekeeping activity as it relates to the therapy of the patients, and in fact everything dealing with occupation up to the time the psychiatrist sends the patient to the preindustrial shop. The occupational therapist acts in the capacity of technical advisor to the nurse, she furnishes supplies and assists the nurse in devising new occupational and recreational outlets.

The policy of boarding-out patients has been continued throughout the year. This hospital is more impressed by the good results of this social method of treatment than ever before. In the report of the Social Service Department, it is noted that 17% of the total number of patients who were placed in boarding homes during the year were either discharged or their status changed to visit. Used as a social case work tool, family care adds a powerful weapon to the armamentarium of the psychiatrist.

The outstanding contribution of the medical and surgical service this year has been the inauguration of a cross index of disease, both physical and psychiatric. When this is completed it will enable us to make better use of our records than has been the case in the past. I would also call your attention to the autospy rate of 63% which has been maintained during the year. I take considerable pride in this record as being not only one of scientific achievement but on the basis that it represents in some degree the relationship of this hospital with the community it serves. A high autopsy rate usually indicates that the insitution has made a special effort to build up a good rapport between itself and those who are using it.

We have continued to utilize the radio installation as a psychotherapeutic medium, and it is with increased interest in its possibilities that we review the experience of several years. The constant hammering home of mental hygiene propaganda undoubtedly affects the patients, although it cannot be mathematically checked. During the year two interesting research projects were carried on by the radio personnel. These are noted in the report of the director.

In the laboratory the year has been marked by the official recognition of the laboratory, by the American Society of Clinical Pathologists as a qualified training school for technicians. Our clinical pathological conferences have continued and as a teaching medium they have proven to be most valuable.

The details of the research projects are noted in the report of the resident director but attention should be called to certain administrative changes that we believe will make for efficiency and more rapid progress. An emphasis has been placed upon individual projects rather than the regimented approach which we have used up to this time. This project method will be further elaborated as the work goes on. This does not by any means indicate that an individual can work on a problem regardless of whether it is within the limits of the interest of the institution or not but it means that, within the broad limits of the approach we are making to the

problems of the schizophrenic, he can elect to take any particular method in which he is interested. Before this is finally decided upon a complete protocol must be worked out by the individual doing the research, and it must be approved by the Research Committee.

Our Editorial Board continues to function and every publication going out of the hospital is passed upon by that group.

In the Psychological Department the outstanding piece of work that was carried on during the year was a study of the play technique of schizophrenics. The record of publications during the year will indicate the broad interest maintained by this department.

It is with a great deal of gratification that we have been able to enlarge the Medical Library, which had become so crowded that additional room was necessary. This was gained by utilizing the office of the Treasurer, that office being removed to a better location. This change also enabled us to give the patients' library better facilities than it has had in the past. The patients' library is a very important adjunct to psychotherapy but like all libraries is of much less value without a well qualified librarian. Bibliotherapy can be made more than a name.

I would call your attention to the report of the Protestant Chaplain of the hospital. This institution has had full time chaplains for a number of years and it is our opinion, as a result of this experience, that well trained theologians have an important place in the work of a mental hospital. This is true for two reasons: first, the contribution that an experienced clergyman can make to the patients, and secondly in the teaching program of the hospital; students from theological seminaries derive great benefit from such an experience.

In the Child Guidance Clinic a considerable amount of time has gone to reviewing and re-establishing the policies of the clinic from the standpoint of therapy, teaching, research and public education. It has been necessary for us to define very definitely the importance of each of these phases and to decide what amount of time should be given to each. The result of these deliberations is that therapy occupies the dominant position and everything must be subservient to this. The intake of the clinic is held down to two hundred new cases each year in order that proper treatment may be given each case. The second most important activity is teaching. We feel a definite responsibility in training new personnel for child guidance work. The third activity in point of importance is research, and it is the belief of this hospital that research is also one of our responsibilities. As the clinic grows in importance and prestige the need for public education proportionately decreases and instead of being the first consideration as has been the case in former years, it now becomes a matter of least importance.

This report includes reports of certain members of the organization who have carried on particularly interesting work during the year. I would call your attention to the report of the steward relative to the course in laundry processing, which he has conducted throughout the year. We believe these courses dealing with special skills should be carried on to the very fullest extent that time will permit.

The installation of a conveyer system in the cafeteria clean-up room has been a most amazing innovation. Hospital administrators would find such method of handling dishes of great importance both in the therapy of patients and in the actual efficiency of a cafeteria.

The chief engineer has inaugurated a very interesting rating system for the employees in his department which has the effect of improving the morale of his group.

The foreman mechanic has devised a system of handling keys in which the entire responsibility is placed on one individual, and all keys in the institution pass through him.

The head farmer makes a very brief report regarding our experience in freezing vegetables and with a planting chart. This hospital has been carrying on an experiment in freezing vegetables for a number of years and with increasing success. It has many advantages over canning methods.

Psychiatric Service

Morris Yorshis, M.D.

The intensive treatment of new admissions and organized instruction to all student groups were the main activities of the psychiatric staff.

In that more mental patients leave the hospital during their first year residence than at any other period, greater emphasis was placed on intensive therapy on all first admissions. The following tables give a resume of the movement of population among the new admissions.

Admissions, Discharges, Visits, and Family Care Placement, 1934–1935

Table I. — *Male*

1934	*Admissions*	*Discharges*	*Visits*	*Family Care*	*Remain 1 year Later*
October	33	8	10	1	8
November	21	7	6	–	8
December	37	15	7	–	7
1935					
January	42	11	18	–	16
February	39	7	12	–	13
March	44	10	18	1	12
April	40	5	9	–	17
May	38	13	7	–	9
June	34	15	6	–	8
July	31	6	7	–	14
August	39	14	5	–	16
September	20	4	2	–	10
Total — Male	418	115	107	2	138

Table II. — *Female*

1934	*Admissions*	*Dicharges*	*Visits*	*Family Care*	*Remain 1 year Later*
October	22	7	7	5	6
November	27	6	14	2	3
December	18	2	9	22	4
1935					
January	25	4	6	2	11
February	22	6	6	2	8
March	24	5	3	1	8
April	29	6	9	3	8
May	32	6	10	2	12
June	28	10	6	3	6
July	26	8	5	–	9
August	35	5	6	1	15
September	30	5	5	1	14
Total — Female	318	70	86	24	104

Table III. — *Total Statistics of Male and Female Population*

	Admissions	*Discharges*	*Visits*	*Family Care*	*Remain 1 years Later*
Male	418	115	107	2	138
Female	318	70	86	24	104
Total	736	185	193	26	242

There were just 100 more male admissions than female. The outright discharge rate (i.e. the patients discharged from observation) was considerably higher also among the male patients. Family care placement was found, however, to be more definitely indicated in the convalescent female patient group and this accounts for the great difference in the number of placements between the two services, — 2 on the male and 24 on the female service.

There were 184 readmissions during the past twelve month interval; 260 patients were discharged from visit and family care, and with the 185 patients discharged outright within the observation commitment period, a total of 445 discharges were made for the year. Seven patients were discharged from family care and 27 patients were placed on visit, indicating that the boarding out of patients is not a static procedure. Patients do improve in an environment away from a mental hospital.

Organization of Therapeutic Activities

The ward psychiatrist aims to practice psychotherapy but because of the increasing number of admissions and few physicians it is most important that all the resources that have any therapeutic value be so organized as to render them

available to the individual patient. The following changes were inaugurated on the two psychiatric services to meet the above goals.

1. *Male Psychiatric Wards:*

Classification of patients on the basis of level of social adjustment was made. Competent trained nurses aided much in creating a hospital atmosphere. The added employment of female nurses on the male wards was made available on all wards. The presence of nurses served to reinforce repressions and encouraged some restraint, and improved social conduct. The development of a kindly and sympathetic attitude was fostered from the time of admission of the patient to the admission service. An organized ward program awaited him.

Habit training was begun at once. Every patient was impressed with the fact that everyone must work. The busy person has less time to think of his misfortunes. Jobs were selected according to the ability and needs of the patient. Those who couldn't work outside were taken out for daily walks when the weather permitted. Those who had to remain indoors spent this time in marching to music and exercises on the ward. Group contacts were stimulated. The cafeteria did much to assist in this respect. Patients were taught to assist in the care of others.

Industrial placements were made early and the patient advanced in accordance with the improvement made. The chaplain's department assisted in special problems. At intervals ward parties were held, often with mixed groups, which had a distinct socializing value. The patients were encouraged to make all the arrangements whenever possible thus stimulating initiative. Bridge and beano were the most popular games.

Evenings were devoted to concerts, to movies, a variation of the traditional hospital dance with groups selected from those in whom social contacts were particularly desirable. On other nights ward activities such as pool, pingpong, cards, and table games were directed by the nurse. The library truck made available books and magazines and all were encouraged to read. Books were often prescribed as to particular needs of patients.

The radio, in use all day, served an added function at night. During the evening hours patients were congregated to hear special broadcasts by members of the staff of mental and physical illnesses and other phases of hospital activities. Lowell Thomas was a particular favorite. His program assisted us greatly in keeping up the patients' interest in world events.

On one ward of selected patients, group therapy was conducted in the classroom manner with mental hygiene talks at regular intervals.

Records of all these varied activities were correlated in a central record room. This accumulated data was tabulated and filed in the individual case records.

The physician serves in the capacity of director of the patient in his various activities. Until such time as it is possible to have sufficient psychiatrists to give personal attention to the patient, it would seem that such a plan as outlined is the only alternative.

2. *Women's Psychiatric Service:*

An attempt was made to organize the time of the physicians' activities in order to increase their efficiency. Such a plan was made possible by the addition of three internes to the service. Each interne under the close supervision of the senior physician was held responsible for the care and treatment of one-third of the patients. The severity of the illness of the patients resident in the wards assigned varied from the acutely disturbed to the convalescent. The efficiency of such a system was enhanced by the cooperation of the nursing service in appointing a supervisor in charge of each section assigned to the interne. Supervision and guidance of the internes' activities were furnished by the junior and senior phsyicians who made ward rounds daily, and discussed the problems which were present on their respective divisions. Such an organization has made possible not only a more intimate knowledge of the details of the patients' illness, but also has placed the treatment on a more specific and intensive basis. The internes have profited greatly by this plan, in that their sense of personal responsibility has been increased, and the latter has stimulated them to greater effort.

In conjunction with the above change, the method of recording data gathered by the nurses was altered because it was felt that the intelligent application and

direction of therapy depended to a great extent upon the knowledge of the patient's behavior and her reactions to treatment. In order to obtain this information the form of ward chart was altered to consist of the following specific information:

1. The behavior chart which contained data regarding not only the mental but also the physical symptoms of the patients.
2. A progress chart which furnished a chronological account of the various activities of the patient.

Autopsy Data

With 257 deaths, a 63% autopsy rate was obtained and some interesting conclusions can be drawn from the data. Among the 22 schizophrenics 6 deaths were due to tuberculosis, 4 died of carcinoma, 9 of these patients were 70 years of age and 5 were over 60. It is planned to determine what the actual psychiatric status was of this group in their seventh and eighth decades, contrasted with that at the time of admission.

A patient with a diagnosis of paranoid condition died of carcinoma of the face. This is in keeping with the concept of White and Freeman who have stated that there is some relationship between the projection mechanism and neoplasm.

A carcinoma of the head of the pancreas was found in a patient diagnosed psychoneurosis.

Twenty-one paretics came to autopsy. All with the exception of one had died of pneumonia, the other death was caused by carcinoma of the rectum. This condition is uncommon as a cause of death in Paresis, having occurred only twice in a series of over 60 successive autopsies among patients with dementia paralytica.

In some instances of lues it was noted that although the spinal fluid had been negative and the gross brain findings were typical of paresis, yet the clinical picture did not show this to be true.

Carcinomatosis was the cause of death in two cases of involutional melancholia.

Seventy-nine autopsies were performed on the senile and arteriosclerotic group.

Teaching

The mental hospital must be an institution for instruction and investigation. By training internes in psychiatry, student social workers, occupational therapy students, medical students, theological students, post-graduate nurses and affiliating nurses, the hospital provides the means to practice preventive psychiatry. This must go hand in hand with therapeutic endeavors. Just treating patients and not carrying on any preventive measures is poor economy. All student groups eventually return to their own activities in the community and with the experience gained at the mental hospital plus the organized instruction which they have received are in a better position to render service along mental hygiene lines.

Another excellent reason for carrying on an extensive teaching program is that the psychiatrist is able to take the nurse, O. T. Worker, social worker, industrial foreman, family caretaker and all others who have daily contact with patients completely into his confidence and thereby make a coordinated team, the members of which have detailed knowledge of his therapeutic aims and can render invaluable aid in the successful attainment of the goals of the hospital getting patients well and keeping them well.

This was the first year that the hospital undertook to train psychiatric internes for a period of twelve months. The Peter Bent Brigham Hospital sent its first interne for training in clinical psychiatry for a period of four months. This is to be a regular procedure and a worth while venture.

The following is the list of courses that were given to the psychiatric internes:

1. Clinical Psychiatry.
2. Seminar in Psychoanalysis.
3. Administrative Psychiatry.
4. Biopsychiatry.
5. Juvenile Psychiatry.
6. Psychiatric Social Service.
7. Neuropathology.
8. Fever Therapy.
9. Endocrines in Psychiatry.
10. Research in Methodology.
11. Psychometrics in Psychiatry.
12. Biometrics.

Publications

State Hospitals as Training Centers. W. A. Bryan. Mental Hygiene, 19: 405, July, 1935.

The Role of Occupational Therapy in Modern Psychiatry. Minna Emch. Am. Jour. Psych. 92: 207, July, 1935.

A Reorientation for State Hospital Psychiatry. Minna Emch. Mental Hygiene, 19: 586, October 1935.

Nursing Service

Katherine M. Steele, Superintendent of Nurses.

This year I find the task of preparing an annual report of the Nursing Service stimulating and difficult. It is a story of rapid growth and of several major changes that we believe to be important and lasting in their influences on the care of patients in this hospital.

The increase in the number of graduate nurses has been gratifying. Last year we had sixty-six graduate nurses. We now have a total of one hundred and twenty-one. This means that we now have a ratio of one graduate nurse to every eighteen and five-tenths patients.

There are many advantages in having graduate nurses caring for mental patients. Some of the outstanding ones are:

First, it is not necessary to spend as much time teaching the graduate nurse. She comes to us already trained in nursing techniques. This year we have been able to secure many graduates with special training in psychiatry. This means that they are more mature and therefore of more value. For the positions of assistant superintendent of nurses and director of nursing education, we have women with college training and exceptional professional experience.

Second, with a large number of graduates, adequately prepared, the standards of the nursing care of patients are raised from the level of custodial care to the constructive teaching of the patient the principles of good physical and mental health. She can also be of help to the patient in his social rehabilitation.

The more intelligent the notes and observations the nurse makes about the patient the more value she can be to the psychiatrist. Nurses have learned much about administration during their training. They are accustomed to the ward as the unit of administration. If they are in the position of head nurse, they are prepared to assume the responsibility for the work of all the employees on the ward for the twenty-four hours. These abilities are difficult for the untrained person to acquire.

The centralization of the administration of the nursing service has become effective this year. The usual type of organization of the nursing service in state hospitals, where there is a complete separation of the male and female services, was built up because it was not thought advisable to have women nurses caring for male patients. The two organizations were top heavy. Ther sevice was the unit of administration rather than the ward. Supervisors were doing much detail work and not true supervision.

With the constant increase in the number of graduate nurses on the male wards, it has seemed advisable to change the plan of administration. We now put emphasis on the ward as the administrative unit and the entire nursing service is centralized under one head.

The results obtained have been that the service is coordinated. There can be a uniformity of procedure over the entire hospital. Routine work can be cut down to a minimum because of lack of duplication and this means more time spent with patients. All the work of the nursing service becomes more effective.

Nursing Education:

In January 1935, nine senior students remained in the training school, the other students having been transferred to general hospital schools in accordance with the suggestions made by the National League of Nursing Education. These nine students were graduated from the Worcester State Hospital in September 1935, and with one exception, have remained on the Nursing Staff as general duty nurses.

A change of program for the affiliating students was made early in 1935. In April and May, thirty lectures were given to a group of forty-eight students from the Hahnemann, Memorial and St. Vincent's Hospitals, Worcester. The instructors were members of the medical and nursing staffs of this hospital and the lectures were designed to give the students a comprehensive, although necessarily brief view of the fields of psychiatry and psychiatric nursing. The students who take this course may elect a three month period of practical experience at the Worcester

State Hospital, if they wish. During 1935, there were twenty-nine affiliating students coming in groups of eight for three months each. During their period at this hospital, they are given further work in psychiatric nursing, one hour each week, four lectures in social service, four in Occupational Therapy, eight lectures in Hydrotherapy and an opportunity to attend ward conferences held by the physicians. The interest shown by the student nurses in this branch of work is very encouraging and several of them have expressed a desire to take up post-graduate work in psychiatry upon completion of their general training.

In September and October, with the large addition to the nursing staff, all new employees, nurses and attendants alike, were given a series of talks by the admintrative staff, telling them the aims and purposes of the hospital, emphasizing important details such as fire rules, escapes, precautions, and so forth, thus giving them from the start, a sense of responsibility to the hospital and an appreciation of their importance as members of the hospital personnel. This orientation course proved very valuable and was repeated often enough so that all new employees received the benefit of it. New attendants have had a series of classes in routine procedures by the chief supervisor.

The post-graduate course in psychiatric nursing is commencing this fall. Four students are enrolled for the first class. Although considerable publicity has been done during August and September by advertising in the American Journal of Nursing, and by distributing folders describing the course to training schools, the small response is probably due to the fact that these efforts were necessarily started too late in the year.

The aim of this post-graduate course is to give graduate nurses a thorough knowledge of psychiatric nursing and allied subjects. It has been set up with more hours of theoretical work than most graduate courses and ability and desire to study and learn are prerequisites. The course includes Psychiatry, Psychiatric Nursing, Psychology, Sociology, Mental Hygiene, Neurology, Endocrinology, the special therapies, Hydrotherapy, Occupational Therapy and Physical Therapy, Psychiatric Social Work, Juvenile Psychiatry and special lectures. The Sociology course will be given by Professor Balsam of Clark University, and in addition to giving the students some idea of social backgrounds and the various forms of social disorganizations which contribute to the problems of patients, it serves as a valuable connection with the university. All the other courses will be taught by members of the hospital staff. In the classes on psychiatric nursing, emphasis will be placed on the patient as a total personality and on the social or public health problems involved.

The affiliate students and post-graduate students will, except for special lectures, be taught in separate groups. In addition to the regular courses, the students will attend staff conferences and ward rounds, and have access to the case histories. Classes and conferences will occupy approximately twelve hours, or three days a week. The clinical experience will obviously be a very valuable part of their teaching, and for this experience the students will spend three days each week on the wards.

For their practical experience, the students will follow the plan of their theoretical work as nearly as it is possible, that is, when they are studying the senile psychoses they will have their practical work on the wards where the majority of the patients are included in this group. We feel it important that they will have their experience on the admission wards toward the end of their eight months' course. For it is on these wards that we wish to concentrate our active therapy and therefore the nurses caring for these patients should be well prepared to take their part in that active therapy.

The need for such a course as this is very evident to anyone interested in the care of the psychotic patients, or in psychiatric nursing; and the Worcester State Hospital, because of its wealth of clinical material and interest in teaching, is an excellent field for this undertaking.

With the addition of 135 new positions, making it possible for the employees in the State institutions to work forty-eight hours a week, our ratio of patients to ward employees has changed from 8.5 patients to one employee to a ratio of 6 patients to one employee. However, this has not increased the actual time spent

with patients because each employee is working two hours less each day. This increase makes it possible to cover the wards if everyone is on duty, but it gives no leeway for vacations and illness. If we were to have an additional quota of twenty positions, we could then distribute vacations evenly throughout the year, and still have a small surplus to allow for illnesses. We would, however, have no housing facilities for this additional quota as the two homes are at present overcrowded.

There is no question but that the shorter day has made for more efficient work and for better satisfied and more interested employees.

As a means of developing some system whereby we might rate Supervisors, head nurses and charge attendants, a personnel committee was formed. It consists of the Superintendent of the hospital, the two senior physicians on the psychiatric services, the two chief supervisors and the Superintendent of Nurses. This committee meets once a week. Several days before the meeting there has been sent to five people who know the work of the employee to be rated, a sheet with questions on it. These questions are scored 0–1 or 2 or left blank if the one rating feels he cannot grade the employee in that respect. This rating is done independently. At the weekly meetng these reports are read, the averages reached and recorded on a scoring sheet. After the rating is completed, the employee is shown his rating with explanations.

We believe the advantages to this system are that it is as near an objective grade as we are able to reach. It lifts the responsibility of rating from one person and it enables the employee to evaluate his own work in the light of group opinion without personal bias.

The superintendent of the hospital has had classes in ward administration for this same group which have aided markedly in the establishment of routine throughout the hospital.

Ward Activity Charts:

Because of the large number of patients in contrast to the number of doctors, nurses, occupational therapists and other personnel, the daily routine of the hospital must of necessity be part of the therapeutic treatment of patients in State hospital. The ward activity charts are an attempt to analyze the content of that therapy. They are a daily record of the general care, the physical activity and the recreation which the patients received and how many patients are engaged in each type of activity. To be effective, these charts must be checked every day and closely supervised. They illuminate the needs and weaknesses on the wards and give a picture of how time is spent. An ever increasing effort is made to put the emphasis on the patient and on keeping him busy.

OCCUPATIONAL THERAPY DEPARTMENT

Dorothea W. Cooke, Chief Occupational Therapist.

With the advent of a new director in June, 1935, the Occupational Therapy Department started reorganization.

The personnel of the department consists of a chief occupational therapist and three trained assistants. In January and July of each year, the Boston School of Occupational Therapy sends us eight students for their training in occupational therapy as applied in a mental hospital.

The chief occupational therapist functions as an administrator of the department and directs student training. One trained assistant directs the Male Industrial Therapy another the Female Industrial Therapy, and a third supervises the pre-industrial shops for men and women. Students are rotated each month between the two services.

The aim of Occupational Therapy is to assist in strengthening and restoring the impaired faculties of normal mentality; namely, productivity, sociability and normal community interest. To accomplish this, pre-industrial shops have been instituted and industrial therapy further developed.

Occupational therapists have made a survey and analysis of the available jobs in the hospital to acquaint the physician with the occupational possibilities and their therapeutic advantages.

Our next objective has been to educate the workman or industrial therapist in charge of patients to maintain a therapeutic supervision, to make his chief interest the patients' improvement rather than the amount of work accomplished

With this type of supervision, we find that the patient makes a more rapid adjustment and that production increases both in quantity and quality.

All assignments are made by the physician whose prescription includes not only results desired but also precautions to be observed by the industrial therapist.

The occupational therapist introduces all patients to new jobs. It is also her duty to see that the physcian's prescription is understood by the industrial therapist, thus making the occupational therapist the interpreter or liaison agent between the physician and the industrial therapist.

A daily report sheet has been instituted, on which are recorded grades with regard to the behavior and adjustment of the patient while working. This report sheet is made out by the industrial therapist, sent to the occupational therapist, who in turn presents it to the physician, enabling the latter thereby to have a daily knowledge of the patient's progress.

For purposes of orientation and the determination of therapeutic need, pre-industrial shops have been organized for new patients.

With this information at hand, the therapeutic placement of the patient in industry is thereby placed on a more rational and specific basis.

Patients not adjusted to industrial placement are kept occupied in ward classes in charge of the ward nurse. These are guided indirectly by the Occupational Therapy Department, a therapist giving material, suggestions and advice to the nurse in charge three days a week at specified hours. Ward games and ward parties are also the nurse's responsibility, the occupational therapist acting indirectly as a source for materials and suggestions.

Community recreational activities, holiday programs, dances, community singing, activities including all the patients in the hospital remain the responsibility of the Occupational Therapy Department.

Social Service Department

Barbara Estes, Head Social Worker

The Social Service Department during the past year has worked on more than 1,800 cases, holding approximately 5,000 interviews and taking 524 histories.

Three new students from Smith and one from Simmons came to the hospital in September for the winter term. On September 30, Miss Alice Paine, social worker on the male service, left to accept a position at the Boston Psychopathic Hospital. Her place was filled in October by the appointment of Miss Anne Hecht.

During the year several changes in the policies of the Social Service Department have been made in order to increase its efficiency. Registration of all cases with the Central Index has been made the responsibility of the clerical office, thus relieving the department of considerable routine work and expediting its contact with other agencies.

During the past the Social Service Department has found it impossible with its present staff to secure histories on all new patients admitted to the hospital, and at the same time carry on any amount of intensive social treatment. With the addition of long time internes to the staff, much of this important work has been delegated to them, to the benefit of all concerned. All cases in which a social problem appears or cases in which it is impossible to secure histories in the hospital, are referred immediately to social service. Because of fewer demands for histories, we are able to spend more time on those referred to us. More sources of information can be contacted, more time can be given to the families of patients.

The latter point seems to us particularly important as it may develop later into specific treatment of the family with the aim of future return of the patient to the home. A diagnosis of mental illness in one member of the family group may result in trauma to other members of the household. Such conditions may be discovered at the time of taking the history and therapy started immediately. When we have time to listen we find that many families wish to talk over their troubles, bringing a variety of problems for our advice.

Discussion of any treatment leads naturally to a consideration of family care. During the past year, 91 placements in boarding homes were made. Of these, 13 were men and 78 women. December 1, 1934, there were 101 patients in family care; during the year 81 cases were closed, leaving a total of 111 patients in boarding homes on November 30, 1935. While statistics usually are dull, we believe that a

vivid picture of the necessary supervision and treatment of these patients may be secured from the following figures. During this period, 44 patients were returned to the hospital, 7 were discharged and 27 were transferred from family care to visit. Visits made to these patients totalled 903, of which 793 were made by the social worker and 110 by physicians.

Since the depression, our applications from families who wish to board patients have increased. The number of such requests which come in from homes of a poorer type has risen, bringing, as a result, the need of more careful investigation to insure the welfare, mental, as well as physical, of our patients. This has increased the burden of the social worker in charge of family care, and if continued, may result in one of two things — either fewer patients on family care, or lessened investigation and consequently, poorer homes. It may be that in the future it will be found expedient to divide the work of this particular part of the Social Service Department, delegating to one worker the investigation of applications for boarding homes and to another the supervision and treatment of the patients involved. If we are to consider our boarding homes as of definite psychotherapeutic value in the treatment of our patients, intensive investigation and supervision is essential.

Report of the Radio Department

Wallace Searle, Director

During the year this department has functioned the same as usual, except that additional experience has rendered the service of more value to the hospital. Practically all of the advertising at the beginning and end of radio programs has been eliminated. In its place we give short talks on mental hygiene, therapeutic suggestions, hospital information, and various news events. News broadcasts which are carefully selected are given on an average of three times daily, only news that would be of general interest to most of the patients being presented. Critical reviews of outside radio programs are being compiled with a view to finding out how they should be utilized, if at all, in this hospital.

From a therapeutic standpoint the operation of the radio station has been utilized to better advantage this year than ever before. Young men are assigned to work on the control boards entirely from the standpoint of its therapeutic value. A large waiting list of patients has accumulated who desire this type of occupational therapy. We feel that much has been accomplished during the past year in this respect. Requests for special programs have increased, which definitely indicates marked interest on the part of the patients in this type of entertainment and education.

Several plays were presented to the patients during the year under the direction of this department in which patients had major parts. There is a definite suggestion that this method of expression on the part of the patients may, in selected cases, have a definite therapeutic effect.

During the year two interesting research projects were conducted by this department. An attempt was made to study the cardiac and respiratory rates under musical stimuli. Music was furnished by victrola records broadcast through the radio system to the research room. Normal subjects who were sophisticated musicians of the same sex and having approximately the same musical background and training were utilized as controls. The cardiac rate was higher at the beginning of each musical number, rapidly adjusting itself to normal. The same music will be played to musically unsophisticated employees and to patients, and comparisons made. One hundred patients have been given the Seashore Test. It is hoped to correlate these findings with the norms of Seashore and see if there is any radical difference between mentally normal and mentally abnormal people in any of these six tests. The data are not sufficiently analyzed to offer any conclusions at this time.

Medical and Surgical Service

W. Everett Glass, Director

The following report summarizes briefly the activity of the medical and surgical service from October 1, 1934 to September 30, 1935.

(1) *Movement of Population on the Service*

There were 919 cases admitted to the service during the record year, which is a decrease of 366 cases over the number admitted last year. As in past years the number of study cases is maintained, 144 cases being admitted during the year. Of these all but 25 were found to be suffering from various types of physical disorders. This figure represents 15% of the total cases admitted to the service and indicates that the psychiatric service is using the medical service to the advantage of the patients by referring to the medical service such cases requiring further study to obtain an accurate physical diagnosis. Seven hundred fourteen cases were discharged from the service during the year, being approximately equally divided as to male and female patients. This represents a monthly turnover of 59 cases which is less than the monthly turnover of 77 cases of the preceding year. As usual, the peak months for discharges were January, March, April, and August, the same seasonal variation shown each year with but slight changes. Discharges from the service detailed as to physical condition shown in the following table:—

	Female	*Male*	*Total*
Recovered and improved	322	345	667
Not improved	10	12	22
Not treated	14	11	25
Total	346	368	714

(2) *Deaths*

During the fiscal year 257 patients died, as compared with 269 of the preceding twelve months.

	Female	*Male*	*Total*
Total number of deaths	131	126	257
Total number of autopsies	–	–	163
Total number of medico-legal cases	–	–	29
Autopsies confirmed ante-mortem diagnoses (70% or more)	–	–	141
Autopsies confirmed partially, ante-mortem diagnoses (50 to 70%)	–	–	20
Autopsies refuted (less than 50%)	–	–	2

Autopsy percentage of deaths 63%

Attendance at autopsies — staff, 661; students, 435; total, 1,096.

Of the total number of deaths, 15 men and 20 women died at the Summer Street Department. This represents an increase of 10 deaths at that department over the figures of the preceding year. This is probably without any significance.

The autopsy percentage is 0.3% higher than the last year, although six less autopsies were done. It may be pointed out that this relatively high percentage of autopsies indicates in a rough way a feeling of good will between the relatives of the patients and the hospital staff, otherwise relatives would not give autopsy permission.

A survey of the deaths reveals that, as usual, pneumonia was given as the primary cause of death in the largest number of deaths — 68, or 22.1%. All of these deaths were listed as bronchopneumonia except 5, which were lobar in distribution.

The average age of the entire group was 70.5 years. This represents an increase of 3.1 years in this group and a decrease in the total number of pneumonia deaths over last year by 5.4%.

Fifty-six persons, or 21.7%, died as a result of changes of a senile nature. The average age in this group was 71.8 years. The two most common causes of death in this group were generalized arteriosclerosis and cardiovascular renal disease.

Thirty-five, or 13.5%, died of general paresis. The average age of death in this group was 37.9 years. These figures represent an increase in the percentage of deaths of 5%. The average age of death is less by 8.7 years when compared with the preceding year.

Twenty-four, or 9.3%, died of pulmonary tuberculosis. The average age in this group was 51.4 years. All of the deaths listed as pulmonary tuberculosis except

one, which was intestinal. This represents an increase of 1.2% over the figures given last year, but the total age has increased from 48.5 to 51.4. This is a consistent rise as compared with the average age of 42.5 two years ago and probably represents the result of concentrated treatment with pneumothorax.

Thirteen cases, or 5%, died from cancer. The average age in this group is 63.6 years. Eight of these cases of cancer originated in the gastro-intestinal tract and one each in the bladder, ovary, cervix, breast, and face. We have continued to use the facilities of the Pondville Cancer Hospital as an aid of treatment of our cancer cases.

Ten deaths, or 3.8%, were due to fractures during the year. The average age of this group was 67.7 years, which is essentially the same figure as given last year. Primary kidney disorders accounted for 7 deaths, primary heart disease for 5 deaths, cerebral hemorrhage for 4, diabetes 2, and primary genito-urinary disease 1.

The remainder of the deaths — 31, or 12% — with an average age of 58.2 are widely scattered as to causes of death and not worth analyzing.

(3) *Consultations*

The following table represents the extent to which the consultant staff has been used in the hospital. The figures given show an increase in X-ray consultations of 480, while the others show a decrease corresponding in genera to the reduction of total cases handled on the service during the year.

Eye	100
Ear, nose, and throat	61
Gynecological and obstetrical	75
General surgical	110
Medical	20
Orthopedic	8
X-ray	1,982
Others	62
Total	2,418

(4) *Obstetrics Detailed*

This service continued as in the past but the total number of deliveries seems to be gradually getting less. This year there were 9 deliveries, 6 male and 3 female, as compared with 13 the year before. During the past year the delivery room has been taken over by the operating room force in an attempt to centralize supplies and personnel.

Considerable difficulty is still experienced in the placement of the children after birth, in many cases nine or ten months being required to find a settlement for them, and this is a deplorable condition. We feel that in general all children should be placed in homes at the end of three months at the very latest.

(5) *Surgery Detailed*

Adenoidectomy	2	Hemorrhoidectomy	10
Amputations (major)	2	Herniorrhaphy	9
Amputations (minor)	5	Hydrocelectomy	1
Appendectomy	6	Hysterectomy	6
Artificial pneumothorax	126	Injection of varicose veins	9
Biopsies	13	Intestinal obstruction volvulus	2
Blood transfusion	1	Mastoidectomy	9
Breast amputation	2	Myringectomy	4
Cataract excision	1	Nasal operations	2
Chest aspiration	8	Oophorectomy and salpingectomy	8
Cholecystectomy	4	Parotid tumor excision	1
Circumcision	3	Perineorrhaphy	14
Colostomy	1	Plastic repairs	1
Cystoscopic examination	2	Pneumolysis	1
Cystogram	3	Proctoscopic examinations	14
Cystotomy, suprapubic	2	Skin tumors — excision	10
Dilatation and currettage	7	Spinal manometrics	62
Deliveries	9	Surgical diathermy	4

Dislocations (reduction)	2	Suturing (miscellaneous)	91
Encephalogram	3	Suspension of uterus	1
Enterostomy	1	Teeth extraction under anaesthesia	26
Epulis removed	2	Tendon repairs	2
Fistulectomy	1	Thyroidectomy	1
Fracture, open reduction	2	Tonsillectomy	14
Fracture, closed reduction	26	Ventriculogram	1
Gastrostomy	3		

During the year 629 operations and proceedings were done in the surgical suite. This is 93 less than the preceding year. In general the list of operations corresponded with the list given last year in variety and number.

(6) *Clinics Detailed*

Eye examinations	695
Ear, nose, and throat examinations	627
Gynecological examinations	645
Luetic treatments	6,456
Small-pox vaccinations	157
Lumbar punctures	514
Typhoid and para-typhoid inoculations	3,168
Hinton Tests	1,478
Others	47
Total	13,787

Last year 10,480 examinations and treatments were given, which was an increase of 2,002 over the preceding year. The figure given this year represents a further increase of 3,307 treatments and examinations given. The luetic treatments accounted for an increase of 2,000 more than the preceding year. This is explained by a change in the system of treatment of syphilis. Treatment as given now is continuous without the former "rest periods." A closer check in the progress of those treated accounted for an increase in the number of Hinton tests and lumbar punctures. The policy of repeating the typhoid inoculation on our patients in the hospital longer than three years accounts for the increase in this figure of over 1,000 treatments.

(7) *Dressings Detailed*

Abrasions and lacerations	3,286
Boils and carbuncles	642
Burns	386
Infections	2,324
Ulcerations	764
Others	2,800
Total "out-patient" dressings	9,911
Total "ward" dressings	37,040
Grand Total	46,951

This figure represents a further increase this year by approximately 1,700 dressings.

(8) *Employees*

This year 2,015 were examined in the employees' clinic. As in past years, this service is offered to the employees daily from 4 to 5 o'clock. Out of the number examined in the clinic, 133 were hospitalized, with a total loss of work of 828 days. Twenty-seven employees required operations of various types. In general the health of the employees has been satisfactory.

(9) *Dental Departments*

	Main Hospital	Summer Street Dept.	Total
Number of patients	4,079	701	4,780
Examinations (Routine)	2,524	460	2,984
Cleanings	1,220	138	1,358
Fillings	1,679	251	1,930
Extractions	1,869	438	2,298
Miscellaneous treatments	1,001	139	1,140
New Dentures made	52	4	56
Dentures repaired	73	8	81
X-ray Diagnosis	79	3	82
Ether, Anesthetics	25	2	27
Impactions Removed	16	2	18
Bridges	5	0	5
Dentures Numbered	142	0	142
Dentures Cleaned	372	0	372
Dentures Adjusted	63	0	63
Totals	9,117	1,445	10,562

The dental service shown by preceding chart was rendered by the resident Dentist, Dental Hygienist, and two dental Internes engaged for the months of June, July, and August. The figures given are essentially the same as those in the preceding years and represent an increase of 672 in the total number of examinations and treatments.

All new patients admitted to the hospital have had their oral conditions charted on dental charts, and careful records have been made, with recommendations which have been carried out. A semi-annual re-examination of all patients has been made where possible and necessary dental work performed.

During the past year a survey was made of the problem of the control of tooth brushes and teeth cleaning materials on the wards. A regular teeth cleaning period has been instituted on each ward and each patient is recorded as to the number of times teeth have been cleaned throughout the month. This record is kept on suitable charts furnished wards by the dental department. The mouth hygiene of the patients has definitely improved under this system. Tooth powder which is made in the hospital pharmacy is distributed to the wards for the patients. This results not only in saving time but also in better mouth hygiene. The entire supervision of the distribution of tooth brushes and tooth powder has been taken over by the Dental Department. Publication: "Excessive and rapid formation of dental calculus." Joseph N. Finni and Jacques Gottlieb, Dental Cosmos, December, 1935.

(10) *X-Ray Department Analysis*

The X-Ray department showed an increase in the number of plates and patients examined by 822 and 470 respectively. There was a decrease in the photographic work from 2,082 to 539.

X-Ray plates used	2,790
Patients examined	1,676
Foot and finger prints (sets)	14
Photographs	539
Lantern Slides	109

During the past year the hospital obtained an X-Ray Timer and also a portable X-Ray unit, both of which were much needed. With the help of the timer it is proposed to standardize our technique and turn out more uniform X-Ray work, which in turn will tend to decrease the waste of expensive X-Ray Plates.

(11) *Physical Therapy Department*

Ultra-violet (air-cooled)	3,100
Ultra-violet (water-cooled)	483
Baking	1,842
Massage	1,298

Diathermy (medical)	600
Diathermy (surgical)	34
Muscle re-education	1,177
Others	145
Total treatments and tests	8,679
Total number of patients treated	5,442

These figures represent an increase in the number of treatments and tests by 554, with a slight decrease in the total number of patients treated. It is hoped that in the coming year we shall be able to treat more general paretics by diathermy. This will be done by assigning one person to help the nursing care of the patients during the diathermy treatment. The above figures indicate a good activity in this department.

(12) The following publications appeared from this department:

Spontaneous Rupture of the Esophagus in Syphilis. W. Everett Glass and William Freeman. Am. Journ. Med. Sci., 189: 80, January, 1935.

Some Temperature Characteristics in Man. Hudson Hoagland and Clifton T. Perkins. Jour. Gen. Physiology, 18: 399. January, 1935.

Tuberose Sclerosis with Unusual Lesions of the Bones. Jacques S. Gottlieb and George R. Lavine. Arch. Neur. and Psych., 33: 379, February, 1935.

Laboratory Report

Joseph M. Looney, M.D., Director

The work of the laboratory has continued to increase during the past year so that the total number of procedures carried out during the year amounted to 56,123, as shown in detail below. This is about the maximum which can be performed with the present equipment. The next year should witness a substantial decrease in the total number of tests performed as the result of a change in the type of work carried on for the research service to that of a more experimental nature.

The work of training qualified college graduates in laboratory procedures has continued as in the past and all of the students who completed the course have been placed in other laboratories. During the year the laboratory was officially recognized by the American Society of Clinical Pathologists as being qualified to train technicians.

The Clinico-pathological conferences have been held on the last Friday of the month in the afternoon instead of at night, with a resulting increase in the attendance. They have served as one of the most valuable means of teaching, especially to students and internes.

The number of autopsies performed during the year, 163, is somewhat lower than the number for the previous year, 169; but with a decrease in deaths from 269 to 257 the ratio of autopsies to deaths is practically unchanged; 63.0 per cent as compared with 62.7 per cent for 1934.

During the year the following papers were published:

Galactose tolerance as measured by the Folin micro and macro blood sugar methods. J. M. Looney and E. M. Jellinek, J. Biol. Chem. *109:* lvii, 1935.

The Therapeutic Use of Dinitrophenol and 3.5 Dinitro-Ortho-Cresol in Schizophrenia. J. M. Looney and R. G. Hoskins, Am. J. of Psychiat. *91:* 1009, 1935.

The Volume of Blood in Normal Subjects and in Patients with Schizophrenia. J. M. Looney and H. Freeman, Arch. Neurol. and Psychiat. *34:* 956, 1935.

The following meetings were attended by the Director:

a. The Federation of the American Societies for Experimental Biology, at which the paper on the *Galactose Tolerance* was presented, April 10–13, in Detroit.

b. The annual meeting of the Massachusetts Medical Society.

c. The fifteenth International Physiological Congress, Leningrad and Moscow, August 8–18, as a delegate from the American Society of Biological Chemists.

During February and March he gave four postgraduate lectures on *Recent Advances in Endocrinology* under the auspices of the New Jersey State Medical Society and Rutgers University at Trenton and neighboring cities.

Dr. Freeman attended the annual meeting of the American Society of Clinical Pathologists at Atlantic City, June 7–10, and read a paper entitled, *Bone Marrow*

Studies in Glandular Fever (Infectious Mononucleosis).

He also attended the annual meeting of the Society for the Study of Internal Secretions, and the annual meeting of the American Medical Association, both of which were held at Atlantic City, June 10–14.

He read a paper entitled, *Grading the Degree of Malignancy of Carcinomata in relation to Treatment and Prognosis*, at St. Vincent's Hospital, Bridgeport, Conn., June 18.

During the year he was elected to membership in the American Society of Pathologists and Bacteriologists and the American College of Physicians.

At the present time the research work of the laboratory has been drected along the lines of individual projects of a more experimental nature. In line with this policy there is now in progress a project to determine the chemical constituents of various regions of the brain of normal and schizophrenic patients. An attempt is being made to assay the activity of the thyroid gland in our patients by injecting iodine and following the level of iodine in the blood and the excretion of this substance in the urine.

The study on the rate of lactic acid production during exercise has been continued and sufficient evidence has accumulated to state that there is a higher production of lactic acid for a given amount of work in the schizophrenic patients than in the normals.

The work on the isolation of the blood pressure raising principle of the adrenal gland has been carried on and will be pushed even more vigourously next year as a result of a grant from the Armour Company to finance the investigation. If a highly purified potent principle can be isolated, it might possibly be of tremendous benefit to general medicine in preventing the fatal fall in blood pressure sometimes occurring under spinal anesthesia.

LABORATORY TESTS FOR FISCAL YEAR
October 1, 1934 — September 30, 1935

Bacterial cultures	241	Blood gases	344
Bacterial smears	1,046	Blood pH	283
Basal metabolisms	1,300	Blood glutathione	779
Blood cultures	61	Blood lactic acid	1,283
Blood creatinine	1,551	Blood magnesium	17
Blood N. P. N.	2,252	Blood potassium	193
Blood sugar	3,179	Blood albumin	189
Blood urea	1,562	Blood lipoids	206
Blood uric acid	1,669	Blood cholesterol esters	204
Blood counts red	3,001	Blood total prot.	190
Blood counts white	3,986	Blood acetone bodies	583
Blood counts diff.	3,955	Blood hydroxbut. acid	345
Haemoglobins	3,684	Blood minute volumes	69
Clotting times	92	Milk analysis	25
Galactose tolerance	99	Milk blood plated	10
Icteric index.	69	Ascetic fluid	21
Mosenthal test	240	Colonic irrigations	185
Nitrogen partition	2,253	Platelet count	10
Plasmodia malaria	7	Reticulocyte count	103
Renal function	81	Schillingrams	341
Spinal fluid cells	505	Blood fragility	8
Spinal fluid gold	503	Stomach contents	278
Spinal fluid chlor.	494	Vomitus	5
Spinal fluid diff.	11	Urine bacteria	20
Spinal fluid glob.	500	Urine bile	531
Spinal fluid sugar	502	Urine urobil.	526
Spinal fluid prot..	498	Urine chlorides	167
Sputa	1,604	Urine blood	10
Stools	1,121	Urine typhoid	6
Tissue sections	2,375	Animal inoculation	8
Urine, routine	8,000	Photos path. spec.	22
VandenBergh test	60	Autogenous vaccines	17

Vital capacity	509	Toxicological exam.	7
Widals	8	Peroxidase stains.	2
Bleeding time	88	Glucose tolerance	7
Urine quant. sugar	805	Spinal fluid uric ac.	3
Blood typing	8	Spinal fluid N. P. N.	2
Ascheim-Zondek test	34	Urine Diacetic Acid	15
Blood phosphorus	152	Water analysis	12
Blood calcium	307	Spinal fluid (T. B.)	1
Blood chloride	192		
Blood cholesterol.	260		
Blood volume	70		
Blood hematocrits	81		
Blood sedimentation	81		

Total number of examinations	56,123
Number of autopsies	163
Grand total	56,286

Report of Research Service

Francis H. Sleeper, Resident Director of Research

As in the past year, the research on schizophrenia has been subsidized by the Division of Mental Hygiene of the Massachusetts Department of Mental Diseases, the Worcester State Hospital, the Memorial Foundation for Neuro-Endocrine Research, and the Rockefeller Foundation. It has continued under the direction of Drs. R. G. Hoskins and F. H. Sleeper.

During the fiscal year twenty-five schizophrenic patients and twenty-five normal men were studied in parallel, as outlined in the previous report, the control subjects living on the wards and undergoing the same tests as the patients. The schizophrenic patients represented a somewhat earlier stage of the psychosis than those previously studied, and the paranoid sub-type was more frequently represented in the sample. The data have been tabulated and the material is being prepared for publication. With this survey the general orientation phase of the research will probably be concluded and future efforts will be directed largely to individual projects, although the cooperative nature of the research will continue to be emphasized.

During the year a thorough critical survey of the previous eight years' work was made and methods of improving the service were given special consideration. Certain changes in administrative procedure were adopted. A Research Council was appointed, consisting of the key men of the organization. This council holds weekly meetings, when all major matters of policy are discussed. It has proved to be a highly effective means of improving coordination within the service.

A different method of inaugurating new research projects was adopted. The research worker advancing a project works out a protocol, discusses the pertinent literature orienting the problem, the possible means of solution, the possible sources of error and means of combatting these. A detailed estimate of total expenses and of the time involved concludes the protocol. A comittee is appointed to consider each protocol in detail. The directors and Chief Biometrician are ex-officio members of all committees. The plan provides for thorough initial critical appraisal of the project and serves to bring to bear on it all the expert counsel available in the group. The plan has proved valuable even to the more experienced investigators on the service. The Editorial Board of five members continues to pass each communication before it is submitted for publication.

The following papers from the Research Service may be discussed briefly:

A Biometric Study of the Relation between Oral and Rectal Temperatures in Normal and Schizophrenic Subjects. Forrest E. Linder, Ph. D. and Hugh T. Carmichael, M.D., C. M., M. S. Human Biology, *7:* 24, February 1935.

The paper gives an account of the oral and rectal temperatures obtained in 25 schizophrenic patients and 25 normal control subjects together with a biometrical analysis of the data. There is no important difference in the temperatures of schizophrenic and normal subjects. In neither group is there a very close relationship between temperatures taken at the two sites. The schizophrenic shows less than normal lability in local adaptivity to temperature regulations. As a result of this

study it is concluded that important differences found in the degree and manner of relation of the oral to rectal temperatures indicate that the organization of the temperature regulating mechanisms in the schizophrenic is different than in normal subjects.

The Reflex Time of the Patellar Tendon Reflex in Normal and Schizophrenic Subjects. Paul E. Huston. Journal of General Psychology. *13:* 3, July 1935.

It has been the general plan of the Psychology Department to study the simplest type of response to stimulation at one extreme to complex reactions to the environment on the other. It has been postulated that defects in reflex responses (knee jerk) are present in schizophrenia. This study was carried out with meticulous attention to detail and it has been shown that there is no difference between the response in the schizophrenic as compared with that of the normal.

A Pharmacodynamic Investigation of the Autonomic Nervous System in Schizophrenia. I. Effect of Intravenous Injections of Epinephrine on the Blood Pressure and Pulse Rate. H. Freeman, M. D. and H. T. Carmichael, M. D. Arch. Neur. & Psychiat. *33:* 342, February 1935.

The reactions of schizophrenic and normal subjects to various drugs having characteristic selective actions upon the sympathetic and parasympathetic components of the autonomic nervous system have been studied. This paper discusses the results obtained in the use of adrenin in 72 schizophrenic and 24 normal subjects. Significant differences between the two groups were obtained. The blood pressure and pulse rate did not react as freely in the schizophrenic as in the control subjects. Prior to the injections of adrenin, a fairly close relationship between the systolic and diastolic blood pressure was found, but after the injections the association was almost totally disrupted. The schizophrenic has less than normal sympathetic reactivity. A study of the correlation between systolic and diastolic blood pressure affords a practical criterion of such reactivity.

The Therapeutic Use of Dinitrophenol and 3.5 Dinitro-Ortho-Cresol in Schizophrenia. J. M. Looney and R. G. Hoskins. American Journal of Psychiatry. *91:* 1,009, March 1935.

Both of these drugs significantly increased the rate of oxygen consumption of schizophrenic patients but were without significant therapeutic value in regard to the mental manifestations.

Investigation of Polyuria in Schizophrenia. Francis H. Sleeper, M. D. American Journal of Psychiatry. *91:* 1019, March 1935.

An attempt was made to explain the polyuria occurring in schizophrenics on physiological grounds. There was some reason to believe that the hypothalamic area might be especially involved. The evidence did not warrant this assumption, but rather seemed to point to psychological reasons for the condition.

Body Temperatures of Persons with Schizophrenia and of Normal Subjects. Effect of Changes in Environmental Temperature. Jacques S. Gottlieb, M. D. and Forrest E. Linder, Ph D., Archives of Neurology and Psychiatry. *33:* 764, April 1935.

This is part of a larger study of homeostasis in schizophrenia. Findings were interpreted as indicating the thermohomeostasis is defective.

The Bromide Permeability Test in Schizophrenia. Hugh T. Carmichael, M. D., C. M., Joseph Rheingold, M. D., and Forrest E. Linder, Ph. D. Journal of Nervous and Mental Disease. *82:* 125, August 1935.

It has been claimed that the schizophrenic patient can be shown to be somewhat abnormal in regard to the interchange of bromide between brain tissues and the circulating blood. It was found that considerable variability in the partition exists. In this series the schizophrenic showed no characteristic peculiarity nor was there any relationship between changes in the coefficient and changes in the clinical condition of the patient.

The Effect of Changes in the Environmental Temperature on the Blood Pressure and Pulse Rate in Normal Men. Jacques S. Gottlieb, American Journal of Physiology. *113:* 181, September 1935.

This paper also reports on a problem which was a part of the investigation of the broad problem of homeostasis. In this case the effect of increase in the environmental temperature on blood pressure and pulse rate was investigated. An increase in the environmental temperature cause a significant increase in the pulse rate and the diastolic blood pressure but not in the systolic pressure.

Volume of Blood in Normal Subjects and in Patients with Schizophrenia. Joseph M. Looney, M. D. and Harry Freeman, M. D. Archives of Neurology and Psychiatry. *34:* 956 November, 1935.

We have been specially interested in the oxygen metabolism of schizophrenic patients. It was necessary to consider the efficiency of the mechanisms for the transportation of oxygen. This depends in part upon blood volume. It was found that the blood volume of the schizophrenic when referred to the surface area was less than normal. In work reported last year, it was shown that the speed of circulation of the blood was also less than in normal individuals. Presumably with both these factors operating there might be a reduced efficiency of circulation in the brain. This effect may be one of the causal factors of the psychosis.

This article received an Associated Press release coming from Chicago where the Journal is published.

Progress and Problems in Endocrinology. R. G. Hoskins, Ph. D., M. D., Journal of the American Medical Association. *105:* 948, September, 1935.

This is a resumé of endocrinology up to the date of publication and was the subject of an Address to the Section on Pediatrics of the American Medical Association at their annual meeting.

Psychiatry is primarily concerned with the abnormal behavior of the individual, and how it can best be altered for better adjustment. Psychiatric research, therefore, has its emphasis placed on why certain individuals behave in a psychotic way. It aims at being able to evaluate all of the physiogenic, psychogenic, neurogenic, constitutional and other data in terms of the patients' behavior. Since our means of delimiting schizophrenia from other mental diseases is limited to differences in mode of behavior (thinking, feeling, acting), it becomes evident that if one uses this concept for delimiting the problems for research, the final evaluation is a psychiatric one.

Through a grant by the Rockefeller Foundation, we have finally been able to augment our psychiatric research staff to a point where the psychiatric case load allows more investigative work to be carried on. In May, 1935, Dr. Eilhard von Domarus, who received his training at the University of Jena and Yale University, joined our staff. His special field of investigation is in thinking disturbances in dementia praecox.

In July 1935, after spending a year at Guy's Hospital in London, Dr. Louis Cohen came to us from the Institute of Human Relations at Yale University. At present he is centering his interest chiefly in the problem of deterioration as it occurs in schizophrenia.

Dr. D. Ewen Cameron, who is Physician in Charge of the Reception Service of the Provencial Mental Hospital at Brandon, Manitoba, and the author of "Objective and Experimental Psychiatry," spent three months this Fall on the Research Service. During this period, he undertook the study of the relation of the systolic to the diastolic blood pressure in a group of emotionally unstable patients. Previous investigators in this hospital have shown that study of this relationship in the schizophrenic group indicates that the sympathetic nervous system is considerably less active in this disorder than in normal individuals. Statistical analysis of Dr. Cameron's findings is being carried out and so far indicates that we may expect to find that the sympathetic nervous system is unduly active in the emotionally unstable group.

During the year, Dr. Andras Angyal has continued his investigations in certain symptom complexes occurring in schizophrenia. He has observed that certain schizophrenics present a number of symptoms which are not likely to occur alone in patients, but only in association with each other. The consistent association of these symptoms seems to be indicative of the presence of a particular syndrome. The principal components of the symptom-complex are: (a) Disturbances of self-awareness (alter ego, depersonalization, etc.); (b) Experience of motor influences and automatism; (c) Certain somatic "delusions"; (d) Auditory hallucinations with endosomatic localization; (e) Phenomena resembling Lilliputian hallucinations (this is not constant); (f) In the more severe cases, a certain type of activity disturbances. The following paper deals with a single aspect of this symptom-complex:

The Perceptual Basis of Somatic Delusions in a Case of Schizophrenia. Andras Angyal, M. D. Archives of Neurology and Psychiatry. *34:* 270, August 1935.

The somatic delusions of a schizophrenic patient were analyzed. The perceptual basis of such delusions proved to consist of certain tactile and kinesthetic phenomena which under certain conditions also appear in normal persons. One of these phenomena consists in the projection of a movement produced by the organism itself (by arterial pulsation, respiratory movements or activity of the skeletal muscles) into an external object which is in contact with the moving part of the body. As another source of somatic delusions were found certain peculiar kinesthetic after-sensations which arise when, without the knowledge of the subject, pressure is removed from a muscle group (for example, by diminishing gradually the weight of an object resting on a certain muscle group). The kinesthetic after-sensation which arises under such conditions consists in an impression that a substance is emanating from the particular region of the body from which the pressure was removed. The frequent occurrence of such phenomena in this patient seems to be due to severe disturbances of self-awareness.

Dr. Cohen has been engaged in carrying out the folllowing projects:

1. Deterioration in schizophrenia with special reference to the significance of stupor. This is a long term project in which an attempt is being made to describe and evaluate the factors involved in personality deterioration. The first factor which is under consideration is stupor and its associated characteristics.

2. Cardiochronographic reactions to pain in schizophrenic patients. (with M. Patterson). This is a study of heart-rate changes to painful stimulation in schizophrenics, including a group in schizophrenic stupor.

3. The effects of hyperthyroidization on deteriorated schizophrenics. (with J. H. Fierman). A study of the physiological and psychiatric changes induced by massive thyroid ingestion is in progress on patients in whom deterioration is extreme.

Dr. von Domarus has continued his investigations on the study of *Thinking Disturbances in Dementia Praecox.* Patients have been interviewed daily over extended period. Their productions have been reported literally and the material studied as to possible laws not yet discovered, but governing the thought processes of schizophrenia. Interpretation of the productions has shown that benign and malignant thinking disturbances may be distinguished. Benign thinking disturbances are defined as those which show correctibility and less strange productions and also go together with a good prognosis. Malignant thinking disturbances show incorrectibility, are para-logical and the prognosis is poor. At the same time, the question has arisen as to whether the thinking disturbances are caused by a disease process or whether they are primary — setting up further destructive processes.

Dr. Miller's approach has been chiefly centered about psychosomatic relationships.

A paper, *Psychogenic factors in the Polyuria of Schizophrenics,* was read at the annual meeting of the American Psychiatric Association, May, 1935, and is accepted for publication in the Journal of Nervous and Mental Disease. A summary of the contents follows.

A previous study by Sleeper and a more recent study by Sleeper and Jellinek revealed a high percentage of polyuria in the schizophrenic population. Exhaustive physiological and biochemical investigations gave no clue for the high fluid intake and output. It was then decided that the motives for the ingestion of large amounts of fluid should be studied. It soon became apparent that the high polyuria group was composed of individuals in whom the drinking of water and other fluids had a high symbolic value. As a group they showed many strongly fixed oral interests, without the development of disguising delusional symptoms. On the other hand, patients from the group with a low output of urine volume appeared to have developed feelings of guilt if oral preoccupation were present. They developed most often paranoid delusions of poisoning or ideas concerning the ingestion of noxious and harmful substances. Consequently the taking of food and fluids by mouth was greatly restricted.

Under the stimulus of Hoskins' use of endocrines in schizophrenia, the utilization of these products as tools for bringing about clinical variability in the psychoses

has been emphasized. We believe we have shown that alterations in basis energy distribution can be brought about by the use of thyroid, male sex hormone (androstine) and adrenin. By studying the shifts in the behavior pattern, one is better able to evaluate the means at the disposal of the particular patient for handling these shifts. This would appear to offer us a valuable tool for approaching the problem of research in psychiatry. The methods by which the individual psychotic can make readjustments to shifts in the balance of his tensions, as brought about by the use of hormones and related drugs, give the investigator an opportunity to study psychodynamics in process. There have been many indications from our previous physiological-biochemical investigations that the homeostasis of the organism is disturbed in schizophrenia. Psychoanalytic and dynamic psychiatry has long pointed out the significance of the instinctual tensions in the formation of personality and its deviations.

Another study of psychosomatic relationships has been made with the use of the cardiochronograph for the study of affectivity in relationship to the content of the psychotic reaction. Patients were interviewed under varying stipulated conditions while a continuous record of the heart beat was being recorded. Synchronnously with this a verbatim stenographic record was made so that fluctuations in the heart rate could be recorded accurately with the content. Present indications are that this method may give a clue to what experiences are significant in the life of a schizophrenic.

Progress this year has been maintained at a satisfactory level. Cooperation between individuals and departments has been most cordial. During the coming year individual research efforts will be emphasized.

Report of the Psychology Department

October 1, 1934 — September 30, 1935

David Shakow, Director

I. *Introduction:*

Since the routine activities of the Department run along smoothly with minor changes from year to year I shall say little about this aspect of the work. In this report rather, the opportunity will be taken to present part of a research program on schizophrenia originally presented to the Research Council of the Hospital. The program has been worked out with the purpose of integrating past, present, and projected psychological work within the Department and in relation to the researches of other departments.

II. *Statistical Report:*

A statistical analysis of the work done by the Department during the year reveals the following:

Psychometric Examinations

	Individuals Examined	*Number of Tests Given*
House		
House patients	267	1,379
Schizophrenia research patients	40	381
Out-Patient		
School clinic	290	495
Jail	14	60
Other patients	38	79
Employees and other normal subjects	131	622
	780	3,016

Experimental Research

	Individuals Examined	*Number of Tests Given*
Patients	50	57
Normal Controls	29	29
	79	86
Totals	859	3,102

III. *Psychological Program:*

There has been considerable advance made during the year in integrating the program of psychological research on schizophrenia. The program at the more immediate theoretical level is organized about the concept of needs and their satisfaction. In the normal person the characteristic pattern (all the patterns here presented are, of course, much simplified for purpose of exposition) in the process of satisfaction of needs is considered to be:

1. Need → Disequilibrium (without anxiety) → Attempt to reestablish equilibrium → Direct Satisfaction → Equilibrium

or frequently:

2. Need → Disequilibrium (without anxiety) → Attempt to reestablish equilibrium → Frustrationdise → Continued quilibrium without anxiety

Indirect satisfaction at mature level (e. g. sublimation) → Equilibirium

In the psychotic, especially the schizophrenic, the characteristic pattern of the satisfaction process is different, and is of the nature of the following:

1. Need — Disequilibrium (without anxiety) — Attempt to reestablish equilibrium Regression — Frustration — Satisfaction — Continued disequilibrium with anxiety — Equilibrium

The major distinction which is made between normal and psychotic persons is that whereas the normal person's way of reachieving equilibirum is by means of reality-serving devices, that of the psychotic is through regression (reversion to a channel of expression belonging to a phase of development earlier than that indicated by the chronological status of the individual). It must be understood, too, that the pattern of behavior suggested is the characteristic type of behavior — not the invariable type of behavior — and that the difference between a psychotic and a normal individual lies in the prevalence of this behavior. It is also probable that, biographically, behavior of type 3 follows on types 1 and 2. If in the process of attempting to establish reality-contact the frustrations are too many and too often repeated for the organism to bear, behavior of type 3 may become habitual.

A consideration of the various aspects of the reaction-pattern of the psychotic will enable one to follow the organization of the research program more adequately. It may be divided into three sections: 1. Needs; 2. Attempts at satisfaction; 3. Actual ways of final satisfaction. These divisions are, of course, artificial but for our present purposes are fairly satisfactory.

With regard to the *needs* and their associated disequilibrium states, an obvious question arises: Is there any difference in the *innate* strength, extent of, and nature of needs between a schizophrenic and a normal person? Until evidence to the contrary is given it seems more reasonable and fruitful to assume that there is the same distribution of need strength in the psychotic as in the normal. Some of the questions which need answer in so far as the nature of needs is concerned are: What are the needs shown? What situations arouse needs? What is the strength of needs? What is the speed with which the organism becomes sensitive to need stimulation? What is the nature of disequilibrium states before attempts to reestablish equilibrium are made? With regard to the attempts at reestablishing equilibrium one is especially interested in the effort expended at direct satisfaction.

Assuming that the fundamental needs of the human organism are, have been,or are potentially, present, then the difficulty in achieving satisfaction of these needs in the normal way may be due to either or both of two kinds of defect:

1. *Low capacity.* The organism is below par in its potentialities. It starts, relatively, with a handicap in its intellectual and motor functions which presumably it can never overcome, even under optimum conditions. The defect is primary.

2. *Inability to achieve capacity level.* Despite the presence of approximately average capacities, something prevents the organism from reaching these capacity levels. This defect is secondary and may be due to either or both of these factors: *immaturity and disintegration.* (These may be present independently and are not synonymous.)

a. *Immaturity* — The subject is unable to react to situations consistently at a level of development to be expected from the "ideal" person of that chronological (and mental) age. The immature response may be due to either:
   1. *Retardation* or *fixation* in the process of maturation.
   2. *Regression* — reversion to a channel of expression belonging to a phase of development earlier than that indicated by the chronological and mental age of the individual.

b. *Disintegration* (or, perhaps better, lack of integrity) — a condition of inharmonious working of the organism, in which there is a lack of coordination and organization as a totality. (Terms such as dissociation, sejunction, individuation [Coghill], etc. are more or less synonmous.) One is concerned not only with the problem of the *quality* of the integration but also with that of the *stability* of the integration.

At this stage of the process of satisfaction of needs one would want to know whether the unsuccessful attempts of the schizophrenic person to obtain direct satisfaction or indirect satisfaction at a high level is due to a fundamental incapacity which does not permit him to meet relatively complicated situations or to interfering factors which do not permit of adequate use of capacities. One is largely concerned here with the *immediate* "whys" of frustration.

The latter stages of the satisfaction process may be considered under the heading of *actual ways of satisfying needs.* This involves the subject's way of handling the results of his attempts to manipulate reality. These attempts result in frustration with the tensions remaining — there is continued disequilibrium, but now probably involving anxiety. In the schizophrenic this tension seems to be released by adopting predominantly earlier modes of response, which result in satisfaction and reestablishment of equilibrium. Some of the obvious questions at this level are: What is the mechanics of tension release in schizophrenia? What is the extent of anxiety in schizophrenia? When does it appear? When not? What is the nature of the equilibirium state?

It is about this pattern that previous and present studies have been organized. The space will not, however, be taken to list these. It seems desirable, however, to describe to some extent some of the projected studies in relation to this program. These studies cannot all be undertaken at once but the plan is to get to them in an order determined largely by available resources.

A. *Studies involving the nature of needs, etc.*

1. Reactions to "free" situations in the playroom. — A logical development of our earlier observation experiments. In this setting will be available materials which permit easily of symbolic manipulation and for that reason seem more likely to bring out reactions connected with the "core" of the personality. An opportunity will here also be given to study the kinds of things which get behind the "autism" of the schizophrenic and some aspects of the "object-relationships" which he establishes.
2. *Suggestion-negativism* — A study of the nature of suggestibility and negativism in the schizophrenic with its implications for the determination of his receptiveness to social simulation.

B. *Studies connected with attempts at need satisfaction, etc.*

There are two major groups of studies which come under this heading. Studies involving capacity and those involving integration. Besides, there are a few which involve mainly the analysis of the nature of the poor performance of the schizophrenic person.

1. *Capacity studies* — These studies attempt to get behind the poor performance of schizophrenics to determine whether capacity level *is* any different from what it is in normal subjects.
   a. *Prodmeter, protracted study.* The indications of a preliminary experiment done a few years ago indicated that when schizophrenics are kept at a

learning task for a long time the existing differences between them and the normal subjects disappear. This present study is intended to follow this up in detail.

b. *Reaction time, protracted study.* An experiment with the same rationale as the above. Both experiments attempt to determine capacity level by a kind of "battering" process.

c. *Effects of motivation on achievement.* Use of rewards and punishment as devices for speeding up the process of approaching the normal level in learning situations.

d. *Effects of competition on achievement.* Use of rivalry or competition — more socialized stimulation — for speeding up the process of approaching the normal level in learning situations.

2. *"Integration" studies.* — Aimed at determining in a limited way certain aspects of the integrative capacity of the schizophrenic individual.

a. *Transfer of training.* A study of the speed and quality of transfer of a skill acquired by one side of the body to the other.

b. *Associated movements.* As a correlative study to the above, the investigation of established associated movements (synkinesis). This is a desirable complement to the previous study since it is approaching the problem at a simpler and somewhat different level.

c. *Psychological profile, self-correlation and variation.* The use of these statistical devices on the accumulated psychological material for the light it can throw on the problem of integration.

d. *Conditioned Reflex.* An early study by us of the patellar tendon reflex latent time showed no difference between normal and schizophrenic subjects. The next logical step was to see what would be the effect of bringing cortical processes more definitely in. For the present the pupiliary reflex has been selected since it would involve a study of the pupil *per se* as well as a study of the conditioning. It is a logical link in the chain of experiments planned for a long time which range from simple behavior at the reflex level through the complicated behavior involved in learning.

3. *Analysis of factors involved in poor performance of schizophrenics.*

a. *Persistent attention study.* With a new pursuitmeter built here the analysis of the attention difficulties shown by the schizophrenic in a very simple task is planned.

b. *Reaction time, effect of preparatory interval.* This study is a follow-up of a previous study which gave some suggestions as to the way in which schizophrenics broke down in situations requiring consistent attitudes or "sets."

c. *Reaction time, perseverative effects.* A follow-up on a previous study which gave promising leads on the nature of perseveration in schizophrenia. This study and the above are closely interrelated.

C. *Studies connected with the ways in which needs are satisfied.*

1. *Tension-release mechanisms.*

a. *Substitution study.* A continuation of the previously reported study with the use of substitute tasks when the original task is interrupted. It is an attempt to study the adequacy of the schizophrenic in finding indirect ways of expression for accumulated tensions.

b. *Repetition-choice and types of reaction to frustration.* Studies especially concerned with the types of reaction shown when the subject is frustrated and the way in which the accumulated tensions are released.

c. *Levels of tension release.* Whereas the previous experiments were concerned with the macroscopic aspects of tension release, the present study is interested in it microscopically. It is a natural outgrowth of our Luria technique study where an hypothesis of levels of tension release was presented. Discrete and continuous free association technics will be used. Besides the verbal material, reaction time, heart rate (cardio-tachometer), respiration, weight change (Sauter scale), movements and perhaps some other indicators of tension will be used. In an associated experiment voluntary and involuntary movements of the hand will be used. The

major purpose of the experiment is to determine the presence of tension in relation to presumably affective situations and the ways in which schizophrenics get rid of it when present.

d. *Autistic gestures and expressive movements.* The use of involuntary movements and expressive movements as tension release mechanisms and indicators of personality qualities is to be studied.

e. *Nature of the equilibrium state* — Comparison of normal and schizophreni subjects over a long period to determine whether the relative equilibrium state is more nearly an equilibirum state in schizophrenics than in normals. The technique to be used includes the cardio-tachometer, movements device, etc.

2. *Language and thought studies.* The use of various technics for getting at the nature of the thought processes both as to content and formal properties.
   a. *Healy P. C. II.*
   b. *Aphasic-schizophrenic relationships.* — Use of tests found valuable with aphasics.
   c. *Errors in Alpha and Otis Tests.* Analysis of errors in these multiple choice tests.
   d. *Tachistoscopic studies.* Exposure of vague pictures to determine apperceptions.
3. *Analytic play technique.*
   a. A series of experiments using materials which offer themselves readily for symbolization of childhood situations. The purpose is to use this technique as an entrée into the conflicts of the patient especially when they are not verbalized (cases of mutism) and to determine the validity of the technic for getting at very early material which according to some theories is supposed to play an important part in the etiology of schizophrenia. For the present, the major technic planned is the use of the construction of dramatic situations in the life of a child.

IV. *Papers published, accepted, read, etc.*

A. *Papers published:*

1. A note on color-blindness in some psychotic groups. J. Soc. Psychol, 1935, 6, 252–256. (M. S. Millard and D. Shakow).
2. The reflex time of the patellar tendon reflex in normal and schizophrenic subjects. J. Gener. Psychol. 1935, 13, 3–41 (P. E. Huston).
3. A psychometric study of 150 adult delinquents. J. Soc. Psychol, 1935, 6, 437–457. (D. Shakow and M. S. Millard).
4. The patient's psychological situation upon admission to a mental hospital. Amer. J. Psychol, 1935, 47, 381–408. (T. Dembo and E. Hanfmann).
5. Freud vs. the Libertine. Modern Thinker, 1935, 6, No. 3., 13–19 (S. Rosenzweig).
6. Outline of a cooperative project for validating the Rorschach test. Amer. J. Orthopsychiat., 1935, 5, 121–123. (S. Rosenzweig).
7. A test for types of reaction to frustration. Am. J. Orthopsychiat. Oct. 1935 (S. Rosenzweig).
8. Apparatus for the Study of Continuous Reaction. Jour. Exper. Psychol. 17: 885, December 1934. (P. E. Huston and J. G. Hayes).
9. Types of Reaction to Frustration. An Heuristic Classification. Jour. Abn. and Soc. Psychol. 29: 298, December 1394. (S. Rosenzweig).
10. Social Structure of a Group of Kindergarten Children. Amer. Jour. of Orthopsychiat., 5: 407–410, 1935 (Oct.) (E. Hanfmann).

The following papers were accepted for publication:

1. Resumption of interrupted activities in schizophrenia. J. Gener. Psychol. (M. Rickers).
2. Motor Functions in schizophrenia: I. Speed of Tapping. J. Gener. Psychol. (D. Shakow and P. E. Huston).
3. Motor Functions in schizophrenia: II. Reaction time. J. Gener. Psychol. (P. E. Huston, D. Shakow, L. Riggs).

4. Accessibility of schizophrenic and normal subjects to environmental influences. J. Gener. Psychol. (M. Rickers).
5. A study of the Hering phenomenon. Psychol. Forsch. (E. Hanfmann).

The following papers were presented at meetings:

1. The social structure of a group of kindergarten children. Amer. Orthopsychiatric Assn., February 1935, New York. (E. Hanfmann).
2. The personality structure of schizophrenic patients. Lewin Group, January, 1935, Ithaca. (M. Rickers).
3. An experimental study of social responsiveness. Harvard Psychol. Clinic, March 1935, Cambridge. (M. Rickers).
4. A test for types of reaction to frustration. Amer. Orthopsychiatric Assn., February 1935, New York. (S. Rosenzweig.)
5. Program for a cooperative project for validating the Rorschach test. Amer. Orthopsychiatric Assn., February 1935, New York. (S. Rosenzweig).
6. Therapy by psychologists. Conn. Valley Assn. of Psychologists, May 1935, New London. (S. Rosenzweig).
7. Research opportunities in a State Hospital. Amer. Psychol. Assn. Sept. 1935, Ann Arbor. (N. Goldman).

V. *Miscellaneous:*

Various members attended the meetings of the American Psychological Assn., American Orthopsychiatric Assn. and of other groups. The abstract work for Psychological Abstracts continued as usual, being partaken in by various members of the department. Two members, Dr. Rickers and Dr. Hanfmann, obtained renewals of their grants-in-aid for research projects from the Social Science Research Council. The Department seminar in "Methodology in Psychopathology" was very successful and a new one to discuss projects and work in progress was started this September.

The plans for the coming year include besides the initiation of some of the projects discussed in the program, the continued analysis of the accumulated data with the purpose of getting material ready for publication.

Library Report

George L. Banay, Ph.D., Librarian

I. Medical Library

Medical science as we know it today is based on experiment and research, and the library, in this connection, is almost as useful a tool as the laboratory. In addition to its primary purpose of curing sick people, this hospital is an institution for research, so the library is built around the periodicals. However, for the benefit of the interns, medical and other students, we keep a well-stocked reference shelf, and the most important textbooks in all the subsidiary sciences are available. The presence of the students creates a lively atmosphere and the library is a busy place throughout the whole year.

To indicate the various activities of the library, I quote the following details:

Periodicals.—Although we could not add any new periodicals to our subscription list this year, we had all the important magazines at our disposal. Here is a classified list: 22 periodicals in Neurology and Psychiatry; 19 in Psychology and Psychoanalysis; 21 in General Medicine; 13 in Internal Medicine, Pathology, Surgery, and Dermatology; 15 in Physiology and Physiological Chemistry; 5 in Physical Medicine and Radiology; 2 in Dentistry; 2 in Medical History; 2 in Hospital Administration; 6 in Social Service; 1 in Occupational Therapy; 2 in Nursing; and 5 in Library Science and Statistics — altogether 115 periodicals, 4 less than the previous year.

Of this number, the hospital subscribes to 79, 2 are paid for by the Memorial Foundation for Neuro-Endocrine Research, 18 are donated by Dr. Hoskins, 2 by Dr. Bryan, 1 by Dr. Sleeper, 1 by Dr. Perkins, 1 by Dr. Looney, 1 by Dr. Carmichael, 1 by Dr. Linder, 1 by Miss Crockett, and 8 come in free from state and federal authorities and medical supply companies.

Of these periodicals, 4 are in French, 10 in German, 4 in Italian, and 97 in English.

Circulation. — The Medical Library circulated 643 volumes last year.

Inter-library Loans. — The Librarian maintained close contact with other Medical Libraries, and we borrowed 155 volumes from seven libraries, namely:

Boston Medical Library	108
New York Academy of Medicine	28
Harvard College Library	11
Clark University Library	3
Worcester Polytechnic Institute	3
Harvard Medical School	1
Columbia University Library	1

On the other hand, we lent 9 volumes to the U. S. Veterans Hospital in Northampton, Massachusetts.

Medical Library Association Exchange. — Our library is a member of the Medical Library Association. This association is of the greatest benefit to all medical libraries in supplying them with missing and out-of-print material for the nominal charge of the postage. During 1935 we received 114 volumes from the Association and gave in exchange 79 volumes to 53 medical libraries.

Back Files. — Continuing the policy of completing the back files of the more important medical periodicals, we were able to complete many items during the year either by purchase from second-hand dealers or by exchange from other libraries.

New Books. — Eighty-six new volumes have been added to the shelves, some of them to the library of the Child Guidance Clinic.

Binding. — We bound 318 volumes during the year (including the ones received from the exchange) so that we are up to date with the binding.

Present State. — On November 30, 1935, the Medical Library had:

3,420	bound volumes of periodicals
14	unbound volumes of periodicals
1,267	bound volumes of books
—	unbound volumes of books
1,140	old books (used for exchange)
613	catalogued reprints and pamphlets
6,454	Total items, an increase of 364 volumes over the previous year.

The old textbooks and other obsolete material have been taken off the shelves and the worn but valuable volumes rebound, so that the library is in an excellent working condition.

Services: — The Librarian continued to circulate the bibliographies and abstracts, prepared many special bibliographies, and translated 15 forgein medical articles. The bibliographies, abstracts, and translations are filed in the Medical Library. We now have more than 3,000 classified abstracts and two volumes of translations.

ERA Projects. — Three projects submitted by the Medical Library were approved by the Federal Government and seven stenographers were assigned for the work. We started to recatalogue our books, to compile a full bibliography on schizophrenia, and to complete our abstracts on schizophrenia up to 1932, when our present abstract service was begun. Due to unfortunate financial complications, after three weeks' work the projects were dropped and there is very little hope that there will ever be enough money avilable to complete them. All three projects were meant to increase the value and usefulness of the Medical Library.

II. General Library

Under the guidance of the Occupational Therapy Department, we started to reorganize the General Library. As the first step, all the obsolete material has been eliminated and the still valuable but shopworn books rebound. The shelves look rather depleted at the present, but we shall build up the library systematically and hope to have it in a fairly good condition in the near future. An Occupational Therapy student is in constant attendance to help the patients to select their reading material and at the same time to safeguard the contents of the library. The students change every month, and the situation, although far from being ideal, is much better than when we had to depend entirely on the patients.

Included in the equipment for the new porches were two new book-trucks. Twice a week trips are made to the male and female wards in the evening hours to provide

reading material for the bedridden and non-parole patients. These trips are very popular and are eagerly awaited.

To replace the eliminated material we bought 150 new books, and we intend to buy 100 new books every three months during the coming year.

We hope to secure the services of a library student who will be in charge of the General Library.

On November 30, 1935, the General Library had:

2,084 volumes of books
176 volumes of bound magazines
27 Bibles and prayer-books

Total 2,287 volumes.

Forty-eight current periodicals and daily newspapers are subscribed to by the hospital.

In addition to this, the Library borrows 150 books every three months from the Worcester Free Public Library to circulate among the patients and employees. Arrangements have been made with the Public Library to send 100 volumes every three months to the Summer Street Department. Besides this we send to the Summer Street Department 100 books every three months from the General Library at the Main Hospital.

We maintained the five sub-branches on the closed wards as before (Lincoln I, Washburn I, Salisbury I, Summer Street Department, and Hillside Farm). The Occupational Therapy Department cooperated in a most helpful way by taking books and magazines to the patients on the closed wards.

The library is well patronized by patients and employees. The average monthly attendance is 1,600 patients and 300 employees.

During the year the library circulated 6,496 volumes and had 22,774 reading visitors.

A few churches of Worcester (First Church of Christ, Scientist, St. John's Episcopal Church, All Saints' Church) and the Worcester Public Library sent to us old books and magazines regularly. We express our hearty thanks to all who have given books and magazines to the library.

Chaplain's Department

Carroll S. Wise, D.D., Chaplain

Many of the duties of a chaplain in a mental hospital are specific and do not change from year to year. One of these is, of course, the conducting of religious services. These have continued during the past year much the same as during previous years, but several advances have been made. The attendance at these services during the past year has been more than doubled. Patients are not forced to attend services, but more positive encouragement is being used on the part of the nurses. Along with this a method has been worked out through which the chaplain contacts patients who do not attend services and whose condition is such that they may attend. Another improvement in the program of religious services has been the monthly observance of Holy Communion. A special service for use in a mental hospital was prepared for these occasions. The patients have always responded in a way which indicated that they appreciated the service, and it is our belief that it has a definite place and value in a mental hospital.

Preaching in a mental hospital presents its peculiar problems, but these are not insurmountable. The usual procedure is to preach on some innocuous subject which has no meaning or value to the patients. Such a method grows out of a failure to understand the problems and the patients. Mental patients on the whole have the same religious needs and problems which ordinary people have. On the wards of a mental hospital may be found individuals who are going through experiences very similar to those which religious leaders have gone through, and for which these leaders found a solution in their religion. All of the religious problems, and more, which come to any minister in the community are to be found within the walls of a mental hospital. It is true that a minister cannot always render the same degree of service to a mental patient as he can to someone who is not in a condition which requires him to be in a hospital. This is due, however, only to the extremity of the patient's condition, and not to any essential difference in

the problems. When this situation is understood and faced honestly it gives religious services and preaching in a mental hospital a quite different aspect than is usually seen. Such activities, then, become an opportunity rather than a formality.

The opportunities for pastoral work in a mental hospital are also large for the properly trained pastor or chaplain, but they are small for a pastor who is not specially trained. Not infrequently something is said in a sermon which brings a request from a patient for a conference. New patients are seen regularly and systematically by the chaplain in an endeavor to establish a friendly relationship with them. The medical wards of the hospital are also visited regularly, and the chaplain is notified when the name of a patient is put on the danger list. Doctors and nurses frequently call the chaplain requesting that he see a patient. A trained pastor in a mental hospital can spend just about as much time as he has at his disposal in seeing patients who might profit in one way or another by such ministrations.

Many of the activities of the chaplain of this hospital may be called educational. The most important of these is the supervision of a group of theological students who study here for twelve weeks during the summer in cooperation with the Council for the Clinical Training of Theological Students, Inc. A separate report has been made on this work which is available for anyone who wishes it. During the past summer a group of eight students and five ministers participated in the course. The ministers were present because they were conscious of problems in their respective parishes which they did not know how to meet. In this course we endeavor to give the student a first-hand contact with mental patients, a thorough knowledge of mental pathology, a knowledge of the approach and contribution of the various specialists in the field of personality problems, and also some understanding of his own approach and contributions as a minister in the solution of such problems. Students and ministers attending this course represent all denominations. The interest in such training is growing rapidly, and each summer many more students apply for admission than we are able to take.

Another educational activity of the chaplain during the past year has been to conduct a course during the fall months for local ministers. These ministers came to the hospital one morning each week for eight weeks and joined in a discussion of personality problems and the minister's relation to them. At the end of the course, the group asked that it be continued as they felt it was of great value to them.

Along with these courses the chaplain has also continued to teach a course in the Boston University School of Theology. He has also made over fifty talks to various groups in the community on mental hygiene subjects. These talks have been given to church groups of various types, Y. M. C. A. groups, Women's Clubs, Men's Clubs, and other such groups.

A project which was begun several years ago in cooperation with the Worcester County Federation of Church Women's Clubs has been continued very successfully during the past year. This organization has sponsored a plan of systematic visiting by a group of sixteen women of the community to certain wards on the women's side of the hospital. These visits are very much appreciated by the patients, and many look forward to them from week to week. During the Christmas season a number of Christmas parties were arranged by this visiting committee, to the great pleasure of the patients. This group has met once a month during the winter and at each meeting a talk was given by the chaplain on some phase of hospital life.

In closing this report grateful acknowledgment should be made for the continued interest and support of the Massachusetts Congregational Conference and Missionary Society, without which this work could not have been carried on.

Child Guidance Clinic

Milton E. Kirkpatrick, Director

The activities of the Child Guidance Clinic should always be considered from a qualitative standpoint, and quotation of figures in such categories as total cases accepted, cases treated, cases closed, number of interviews, etc. should not receive primary consideration. This Clinic has constantly adhered to the principles of therapy and has carefully avoided any procedure which would incline toward strictly diagnostic work. Treatment of the individual child is and will continue to be our chief objective. The freedom which has been accorded the Clinic in

limiting its intake to the number consistent with good therapeutic endeavor is greatly appreciated by the entire staff. As at present organized, this should not exceed 200 new cases each year.

The training of personnel is secondary in importance to therapy. During the past year two students from Simmons College and one from the Smith College School for Social Work were given their field training at the Clinic. The theses which they prepared by the aid of Clinic material for qualification for their degrees in social work will be discussed later. The Director feels that this program is very important and should be continued. We would like to see our students remain in Massachusetts and we hope that in the near future some of them will be absorbed in the social agencies of Worcester.

The case records at the clinic contain a wealth of material which could be used for research purposes. The Director intends that the staff of the clinic shall make increasing use of this material. Each year has seen some new research completed. We hope that in the near future something outstanding will be developed.

Community education, which is so important in the early years of any Child Guidance Clinic, occupies a position of lesser importance. So much has been done in this direction that we feel it no longer essential; the time of staff members can be used to a much greater advantage in the treatment of children. Our case load most be carefully selected. There are always a number of cases wanting service. In view of this situation the Director advises careful discrimination in the acceptance of popular speaking engagements.

Reference to the Statistical Table above shows that 559 children received service at the Clinic during the fiscal year ending November 30, 1935. It is the Director's opinion that each case treated reaches on the average of three other interested persons, either parents, teachers or brothers and sisters. Full service cases numbered 340. An additional 140 cases were handled on a cooperative basis between the clinic and local social agences. Special service cases of an advice nature numbered 79. During the year 400 cases were closed. This figure is abnormally high and needs some explanation. The change in personnel necessitated by the resignation of four permanent staff members whose aggregate period of service to the clinic totals 19 years, resulted in the closing of more than the usual number of cases and also in the reduction of the number of new cases accepted.

In regard to the source of referrals, we note that social agencies are consulting the clinic with much greater frequency. We take this as an indication that the clinic is useful in their program. The increasing number of agency workers who are able to do good cooperative case work with the clinic is most encouraging. The Juvenile Court referred 56 children during the year. The Director is definitely of the opinion that we are not getting these cases early enough. One of our most valuable treatment adjuncts, that of foster home care, is little used. Only four boys referred by the Court last year were placed in foster homes — the remainder were too old or too steeped in chronic delinquency patterns to make placement a wise or potentially satisfactory plan.

The clinic is vitally interested in four community projects which promise much for mental hygiene in this vicinity.

1. We are furnishing both psychiatric and social work service to the newly organized Shrewsbury School Clinic under the direction of Dr. Farrar.

2. The Superintendent of the County Training School for Boys, at Oakdale, has asked for and is receiving a very thorough service for the school. This is a most unusual opportunity. Probably never before has a clinic been accorded such a high degree of cooperation in a correctional institution and we regard it as an extremely challenging situation.

3. The Director of the Worcester Girls Club has asked that a psychiatric social worker be assigned to the club on a basis of two hours, two afternoons a week. She hopes to be able to obtain from her Executive Board consent to add a psychiatric social worker permanently to her staff on the basis of the service a part-time worker can render in her organization.

4. Through the Simmons College School for Social Work, four workers from local agencies are being supervised by staff members in order that they may complete their qualifications for membership in the American Association of Social Workers.

These four workers are key people in their organizations and we expect them to be very valuable to us in future relationships.

Research completed during the year includes three theses by Social Work students in training. "A Study of Children Referred by the Juvenile Court to the Worcester Child Guidance Clinic with special Reference to Those for Whom Clinic Treatment was Recommended" by Miss Josephone Parker of Smith College, "Study and Treatment of Cases at the Worcester Child Guidance Clinic" by Miss Dorothy K. Howerton of Simmons College, and "Forty-two Delinquent Boys with Special Attention to Their School Placement" by Miss Elizabeth B. Rose of Simmons College. "Some Factors in Truancy" begun elsewhere but completed during the year was published in the October issue of Mental Hygiene by the Director and an associate. "The Contribution of Child Guidance Theory to the Treatment of Behavior Problems in the Field of Probation" was presented by the Director before the National Conference of Social Work, in Montreal.

Research in progress at the present time includes a thesis on Referrals and another on Treatment. Miss Clark is beginning to evaluate the cases of speech defects that she has treated at the Clinic during the past four years. Mr. Brush is making a detailed comparison of personality types and their relationship to different intelligence tests. The Director expects to complete a study of "One Thousand First Offenders", begun elsewhere, sometime during the year.

Staff members have participated actively in the teaching program at the Hospital. Lectures have been given to the theological students, medical students and nurses. Once each month a Child Guidance Clinic case is presented before the Hospital Staff. We expect to continue the policy of carefully integrating the work of the Clinic with that of the Hospital and make it a vital part of the serrvice being rendered to the community.

The statistical report for the Department for fiscal year is appended.

Worcester Child Guidance Clinic
Annual Service Report

		Total
I.	Report of Case Load:	
	A. *Carried Cases:*	
	1. Cases carried over from last year	355
	2. Intake a. New cases accepted	188
	b. Old cases reopened	
	(1) last closed before present year	11
	(2) last closed within present year	5
	3. Total cases open at sometime in this year	559
	4. Cases taken from service	400
	5. Cases carried forward to next year	159
	B. Closed cases followed up (not reopened)	55
	C. Applications rejected	25
	D. Applications withdrawn	68
II.	Type of Service Classification:	
	A. *New Accepted Cases:*	
	6. Full service a. Clinic staff cases, 4 reopened	63
	b. Cooperative cases, 6 reopened	81
	c. Full service not a or b	4
	7. Special Service (Advice) 6 reopened	56
	8. Mental Health study	0
	9. Total new cases accepted	204
	B. *Total Cases Open at Sometime in the Year:*	
	10. Full service a. Clinic staff cases	340
	b. Cooperative cases	120
	c. Full service not a or b	38
	11. Special service (Advice)	79
	12. Mental Health Study	0
	13. Total cases open at sometime this year	559

C. *Cases taken from Service:*
14. Full service a. Clinic staff cases 266
b. Cooperative cases 78
c. Full service cases not a or b 19
15. Special service (Advice) 37
16. Mental Health Study 0
17. Total cases closed during this year 400

III. Sources Referring New Accepted Cases:

	Full	*Special*	*Total*
18. Agencies a. Social	51 (7 reopened)	12	63
b. Medical	1		1
19. Schools a. Public	4	3	7
20. Juvenile Court	33 (2 reopened)	23 (4 reopened)	56
21. Private physicians	2		2
22. Parents and relatives	57 (1 reopened)	18 (2 reopened)	75
23. Total new cases	148 (10 reopened)	56 (6 reopened)	204

IV. Summary of Work with or About Patients:

	Total
A. *By Psychiatrists:*	
1. Interviews with patients a. for examination	213
b. for treatment	714
2. Interviews about patients	151
3. Physical examinations by clinic staff members	107
B. *By Psychologists:*	
1. Interviews with patients a. for examination	181
b. for re-examination	25
c. for treatment	513
2. Interviews about patients	61
C. *By Social Workers:*	
1. Interviews in Clinic	851
2. Interviews outside clinic	728
3. Telephone calls	976
D. *Number of Cases given Initial Staff Conference:*	
1. Full services a. Clinic staff cases	55
b. Cooperative cases	90
2. Special service	17
E. *Number of Open Cases given Service during year by Workers:* Approximately	450
F. *Referral Interviews* (June to December 1, 1935) approximately	75

V. Personnel Report (Average Staff during year):

		Part time	*Full time*
A. *Regular Staff:*	a. Psychiatrist	1	2
	b. Psychologist	1	2
	c. Social workers	2	2–3
	d. Clerical workers	2	2
B. *Staff in Training:*	a. Social workers	1	2–3

VI. Operating Schedule:
A. Schedule of clinic days and hours:
9:00 to 5:00 daily
9:00 to 12:00 Saturdays
B. Schedule of Attendance of psychiatrists:
9:00 to 5:00 daily
9:00 to 12:00 Saturdays

Educational Services:
Number of lectures and courses given by Dr. Kirkpatrick, 18; Miss Walton, 4; Dr. Hill, 5; Dr. Hartwell, 4; Miss Wyman,1; Mrs. Huston, 2; Mr. Toy, 2.

Committee Meetings and Conferences attended by Staff Members:

Number	*Month*	*Occasion*
1	February	A.A.S.W. Delegate Conference, Washington D. C.
5	February	Amer. Orthopsychiatric meeting, New York.

5 May . . Child Welfare Conference, Cambridge, Mass.
1 May . . American Psychiatric Association . .
3 June . . National Conference of Social Workers, Montreal
1 July . . Supervisors Meeting, Smith College, Northampton
5 September . Social Work Conference, Wellesley.

Visitors to Clinic — Other than Interested in Individual Patients:
a. Number from city, 23 b. Number from outside city, 28.
Dr. Doris Sidwell, Danvers State Hospital
Dr. Helen Witmer, Smith College
Dr. Douglas A. Thom, Boston, Mass.
Miss Mary Augusta Clark, National Committee for Mental Hygiene
Miss Harriet Parsons, Family Welfare Society, Newton, Mass.
Dr. George Stevenson, National Committee for Mental Hygiene.
Dr. Clarence Hincks, National Committee for Mental Hygiene.
Miss Annette Garrett ,Smith College School for Social Work.
Dr. Everett Kimball, Smith College School for Social Work.

Farm Report

Oakleigh Jauncey, Head Farmer

Seasonal variations in crop production with periods of over-production on one hand and underproduction on the other necessitate careful planning on the part of the institutional farmer if the best interests of the institution are to be served.

With this fundamental idea in mind, for the past few years we have developed and used at this hospital a planting chart which permits the farm manager to lay out a program of planting and harvesting whereby he can supply the hospital with fresh vegetables in season and store in the farm and freeze in cold storage enough vegetables to supply the hospital until the following season's crops are ready for harvest.

Prior to the planting season each year the steward, chef, and farm manager determine the variety and amounts of vegetables needed by the hospital.

The planting chart is figured on a weekly basis and is so devised that space is given horizontally for 52 weeks and vertically for the variety of vegetables. In the horizontal spaces are inserted in black the desired weekly delivery of farm produce and in red the actual delivery as the crops come to harvest. From the planting chart the farm manager makes up his seed list and orders the seed in advance of the planting season, taking into consideration the seed which is best adapted to the soil to be planted and the amount necessary for crops which can profitably be utilized by the institution. The use of the chart facilitiates the purchase of seed maturing at different harvesting seasons. The earlier varieties of seeds are planted first and the planting is so planned as to arrange for efficient weeding and harvesting to avoid flooding the institution market. In practice it has been found that the estimated delivery of farm crops compares favorably with the actual deliveries. Naturally this follows only when the weather is favorable and all other things are equal. The steward, chef, and farm manager all know far in advance just what vegetables are to be expected and will be available at any time throughout the year, with an average season. It eliminates the possibility of delivering vegetables to the institution which cannot be utilized and which would result in an economic waste to the hospital. If a freezing program is in effect in a given institution, by the use of this chart the additional labor necessary for preparation of the various foodstuffs can be arranged for in cooperation with the physicians of the hospital. It affords an easy method of calculating seed purchases and acreage to be planted, eliminating guesswork to a considerable degree.

Steward's Report

Herbert W. Smith, Steward

The laundry of the mental hospital has always been an administrative problem. Too much responsibility is placed on the head laundryman and too little knowledge of laundry practice and processing is known by those administering it. The results are usually unsatisfactory. In January of 1935 we started an intensive study of laundry procedure at this hospital which we are still pursuing and from which we have derived much valuable knowledge and also improved the quality of work

done. The study has been carried on with two main objectives in mind — first, to obtain clean white linen; second, to do this with the least injury to tensile strength of the fabric.

The vital part of any laundry is the wash wheels. What goes on within them during a laundry process has been the better part of our study. Great damage can be done by the improper washing of clothes and this in turn can make replacement cost high. Formulas are built in a great many instances by the "Trial and error" method, and in our study of this subject we found that there are control methods, which although they may not be absolute, can be applied satisfactorily in a practical way. We are working along these lines and find that the knowledge applied aids us considerably in knowing what is going on inside of the wash wheel.

There are several factors that are absolutely essential to good laundry practice such as thermometers for registering proper temperature, accurate devices for measuring water levels, proper cold and hot water inlet valves to wash wheels, etc., that all are important when considering the objectives we are striving for. These we do not possess at this time, but thus far have brought our standard of work up to a great deal higher level than it was in January of 1935.

This study would be of no practical value unless it was applied, and to do this, we have stimulated interest in the minds of our laundry employees, and during the past winter months have held weekly classes after working hours to pass on the information we have gained relative to the control system of running wash wheels. This has been attended by all of the male employees in the laundry who have shown great interest in the subject and it has been reflected in their work. We feel that by the end of the course we will have made several good washers out of young men who originally came into the laundry with no other purpose than to fill a job.

The cafeteria system of feeding patients and employees was started in this hospital in October of 1927. Various factors pertaining to this service that were not entirely satisfactory at the beginning have been ironed out and made to run smoothly.

One factor in particular that has given more trouble than all others combined, was the proper handling of trays and dishes left at a central clean-up room after the patients were through with them. Here it was necessary to scrape the table waste from plates and trays and return them to the dish-washer to be cleansed and put back into circulation. This clean-up room has been one of our greater problems on account of the noise and confusion together with the messy condition brought about by the method employed in handling the dishes coming into this room.

We often thought of an endless belt or conveyor system to be used in connection with this problem, but never felt that we had the money to invest for such a purpose. Conditions did not improve, so in the latter part of 1935 we designed an endless conveyor belt which was built at the institution by our own mechanics and put into operation.

There are one or two startling results that have been obtained from the use of this mechanism. First, the room is no longer noisy or messy; and second, while previously it had been necessary to have 10 men take care of the dishes coming into this clean-up room, we now find that with the belt, we can do the work very readily with five. It has also reduced the crockery breakage at this point to a minimum.

Report of Foreman Mechanic

Anton Svenson, Foreman Mechanic

During the year a new system of handling keys was started. Under the old system a considerable number of keys were lost or mislaid. With several people handling keys, the responsibility for their loss could not always be placed. A key cabinet was built with space for storing all the keys of the hospital and special spaces for the separate buildings so arranged and numbered that keys for individual rooms could be quickly obtained. The cabinet is located in the carpenter shop storeroom. New employees get their keys here when employed and turn them in at the same place when leaving the service. Broken keys must also be turned in for replacement. The treasurer of the hospital is notified that all keys are accounted for before final payment can be made. Since the installation of the system, the hospital has had no financial loss as a result of lost keys.

Recently a key machine was purchased which permits the manufacture of all types of keys very rapidly. Inasmuch as many of our keys and locks are old and worn necessitating much repair work, it is estimated that the key machine will pay for itself in time saved in less than six months.

Engineer's Report

Warren G. Proctor, Chief Engineer

During the past year each man in the department has been rated as to efficiency according to a plan developed by an operating engineer. Eighteen major characteristics were considered. At regular intervals each member of the crew was given his rating by the chief engineer, his deficiencies explained and recommendations for improvement emphasized. When improvement resulted commendation was given. Not only has this system proved beneficial to the hospital but it has helped the individual men. All the men in the department have been continually urged to improve themselves by study in order to qualify for the next higher position in the department. Several of the men are attending night classes at the Worcester Trade School, another has been taking a course in mechanical engineering at the Y. M. C. A. Two of the attendants in charge of patients in the boiler room during the winter months obtained their second class firemen's licenses. During the year one man has received his first class engineer's license, one has advanced a grade to a first class firemen's license and another has received his second class fireman's license.

While it is realized that we may lose some of these men to other institutions, the additional knowledge these men have obtained and are using in the plant should eventually result in an increased efficiency which will mean a definite saving to the hospital in diminished operating costs.

I would not be carrying out my duty to the patients of the hospital and their relatives in the community, did I not call the attention of the Trustees to the entirely inadequate appropriations that have been the rule for a number of years for the physical upkeep of the buildings of this hospital. These appropriations have been cut to a point where the physical plant has suffered. As an illustration I take the one item of paint. Certainly paint is an excellent investment for any landlord. The wards of a hospital of this kind get a greater wear and tear than would be the case in any other kind of a building that one can think of. Frequent painting would add a great deal to the length of life of the buildings, to say nothing of the improved environment of the patient.

There are many improvements and betterments that should be seriously considered at a very early date. The program of new floors, changes in the medical service through the installation of elevators and new diet kitchens, would all add to our service to patients and it is to be hoped would eventually result in an increase in the discharge rate.

I submitted a complete program of improvements in 1933. It would be useless to go over these same projects again but I respectfully call your attention to my report of that year. The need for these betterments is even greater at this time than it was at that time. The outstanding need of the hospital is a new laundry and additional accommodations for employees, if we are to continue to house our working personnel. The machinery in our present laundry will not last much longer. It is entirely inadequate and the result is destruction of clothing, inordinate wear and tear on our linens and a general lowering of morale due to irritation on the part of both employee and patient.

If we are to continue to house employees in the hospital, the increased number entering the service because of the eight hour day, makes it imperative that additional accommodations be considered. The renovation of the present farm house and an addition to the nurses home, will have to be seriously thought of in the very near future.

In conclusion I wish to call the attention of the board to the splendid spirit that has prevailed throughout the hospital during the entire year. Officers and employees have worked unceasingly towards the goal that has been set for them, and I would indeed be remiss in my duty if I did not acquaint the board with this

fact. My personal acknolwedgment to the Board is a pleasure and duty. It has greatly lightened the labor that comes upon any administrator during the changing times in which we live, to know that he has the support and approval of a group of citizens such as constitute the membership of the board. I make grateful acknowlegment of your interest, and the time and energy you have expended in helping me solve the various problems that have come up during the year.

Respectfully submitted,

WILLIAM A. BRYAN,

Superintendent.

VALUATION

November 30, 1935

REAL ESTATE

Land, 589.16 acres	$444,570.00
Buildings and Betterments	2,346,178.40
	$2,790,748.40

PERSONAL PROPERTY

Travel, transportation and office expenses	$9,315.46
Food	9,941.71
Clothing and materials	27,887.12
Furnishings and household supplies	272,010.28
Medical and general care	54,867.65
Heat and other plant operation	8,632.09
Farm	53,461.86
Garage and grounds	10,647.58
Repairs	18,018.89
	$464,782.64

SUMMARY

Real estate	$2,790,748.40
Personal property	464,782.64
	$3,255,531.04

FINANCIAL STATEMENT

To the Department of Mental Diseases:

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1935.

STATEMENT OF EARNINGS

Board of Patients		$72,058.71
Personal Services		268.00
Sales:		
Food	$3,747.81	
Clothing and materials	15.00	
Furnishings and household supplies	43.90	
Medical and general care	82.08	
Heat and other plant operations	23.46	
Garage and grounds	9.10	
Repairs ordinary	20.03	
Farm	355.72	
Total sales		$4,297.10
Miscellaneous:		
Interest on bank balances	$180.00	
Rents	1,546.55	
Commission on Pay Station Telephone	121.76	
Reimbursements on account of Patients' Boarded Out	322.75	
Total miscellaneous		$2,171.06
Total Earnings for the year		$78,794.87
Total cash receipts reverting and transferred to the State Treasurer		78,812.87
Accounts receivable outstanding Dec. 1, 1934	$63.00	
Accounts receivable outstanding Nov. 30, 1935	45.00	
Accounts receivable increased		$18.00

MAINTENANCE APPROPRIATION

Balance from previous year, brought forward	$30,063.53
Appropriation, current year	869,570.00
Total	$899,633.53

Expenditures as follows:

1. Personal services	$451,509.24
2. Food	151,578.42
3. Medical and general care	37,815.77
4. Religious instruction	2,638.67
5. Farm	27,869.31
6. Heat and other plant operation	95,102.76
7. Travel, transportation and office expenses	9,077.05
8. Garage and grounds; garage, $3,788.03, grounds, $1,633.79	5,421.82
9. Clothing and materials	15,706.60
10. Furnishings and household supplies	29,578.13
11. Repairs ordinary	15,507.15

12. Repairs and renewals	10,104.46	
Total maintenance expenditures		$851,909.38
Balance of maintenance appropriation, Nov. 30, 1935		47,724.15
		$899,633.53

SPECIAL APPROPRIATIONS

Balance December 1, 1935 brought forward		$397,517.19
Appropriations for current year		52,100.00
Total		$449,617.19
Expended during the year (see statement below)	$298,775.03	
Reverting to Treasury of Commonwealth	107.85	
		298,882.88
Balance November 30, 1935 carried to next year		$150,734.31

APPROPRIATION	Act or Resolve Ch. Acts	Total Amount Appropriated	Expended during Fiscal Year	Total Expended to Date	Balance at end of year
Roof repairs and fire protection, item 458A	371–1933	$41,000.00	–	$40,892.15	$107.85*
Alterations for fire protection, MSP M-20, PWAD 6243		90,000.00	$50,070.24	88,585.21	1,414.79
Standpipe, MSP M-39, PWAD 4640		42,000.00	30,266.89	36,666.68	5,333.32
Fireproof balconies, MSP M-48; PWAD 4465		138,000.00	60,659.75	101,380.22	36,619.78
Sprinklers and rewiring, MSP M-49; PWAD 5308		114,000.00	92,092.04	99,513.95	14,486.05
Hydrotherapy building, MSP M-50; PWAD 4657		125,000.00	65,686.11	77,219.63	47,780.37
Window calking and weather strips		5,000.00	–	–	5,000.00
Roof repairs		7,700.00	–	–	7,700.00
Quimby ward building renovation		18,000.00	–	–	18,000.00
Mechanical refrigeration		14,400.00	–	–	14,400.00

PER CAPITA

During the year the average number of patients has been 2,306.77.
Total cost of maintenance, $851,909.38.
Equal to a weekly per capita cost of (52 weeks to year), $7.1020.
Total receipts for the year, $78,812.87.
Equal to a weekly per capita of $.6570.
Total net cost of Maintenance for year (Total maintenance less total receipts), $773,096.51.
Net weekly per capita, $6.4450.

Respectfully submitted,
MARGARET T. CRIMMINS,
Treasurer.

STATEMENT OF FUNDS

November 30, 1935

CANTEEN FUND

Balance on hand November 30, 1934	$735.56	
Receipts	16,696.17	
		$17,431.73
Expended		16,517.40
		$914.33

Investments

Worcester Depositors Corp. (Class A Certificate)	$160.00	
Mechanics National Bank	734.57	
Cash on hand November 30, 1934	19.76	
		$914.33

PATIENTS' FUND

Balance on hand November 30, 1934	$6,837.86	
Receipts	7,659.37	
Interest	180.00	
		$14,677.23
Expended	$6,629.90	
Interest paid to State Treasurer	180.00	
		6,809.90
		$7,867.33

Investments

Worcester County Institution for Savings	$1,000.00
Worcester Five Cents Savings Bank	1,000.00
Worcester Mechanics Savings Bank	1,000.00
Peoples Savings Bank	1,500.00
Worcester Depositors Corp. (Class A. Certif.)	100.00

Bay State Savings Bank	1,500.00	
Balance Mechanics National Bank	1,340.04	
Cash on hand December 1, 1935	427.29	
		$7,867.33

ROCKEFELLER RESEARCH PROJECT

Balance on hand November 30, 1934	$7,959.22	
Receipts to November 30, 1935	12,610.60	
		$20,569.82
Expended to November 30, 1935		18,898.21
Balance on hand November 30, 1935		$1,671.61
Investments		
Worcester County Trust Co.		$1,671.61

CLEMENT FUND

Balance on hand November 30, 1934	$1,000.00	
Income	30.00	
		$1,030.00
Expended		30.00
		$1,000.00
Investments		
Worcester County Institution for Savings		$1,000.00

LEWIS FUND

Balance on hand November 30, 1934	$1,334.19	
Income	39.00	
		$1,373.19
Expended		41.20
		$1,331.99
Investments		
Worcester Five Cents Savings Bank	$1,300.00	
Balance Mechanics National Bank	31.99	
		$1,331.99

MANSON FUND

Balance on hand November 30, 1934	$1,020.83	
Income	41.90	
		$1,062.73
Investments		
Millbury Savings Bank	$1,061.90	
Balance Mechanics National Bank	.83	
		$1,062.73

WHEELER FUND

Balance on hand November 30, 1934	$1,053.56	
Income	30.00	
		$1,083.56
Expended		81.64
		$1,001.92
Investments		
Worcester Mechanics Savings Bank	$1,000.00	
Balance Mechanics National Bank	1.92	
		$1,001.92

STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

(Data correct at end of institution year November 30, 1935)

Date of *opening* as a hospital for mental diseases, January 18, 1833.
Type of hospital: State.
Hospital plant.
Value of hospital property:

Real estate, including buildings	$2,790,748.40
Personal property	464,782.64
Total	$3,255,531.04

Total acreage of hospital property owned, 589.16
Additional acreage rented, 75
Total acreage under cultivation during previous year, 177
Officers and employees: November 30, 1935

	Actually in Service at End of Year			Vacancies at end of Year		
	M.	F.	T.	M.	F.	T.
Superintendents	1	–	1	–	–	–
Assistant physicians	11	–	11	1	–	1
Clinical assistants	–	1	1	1	–	1
Total physicians	12	1	13	2	–	2
Stewards	1	–	1	–	–	–
Resident dentists	1	–	1	–	–	–
Pharmacists	1	–	1	–	–	–
Graduate nurses	1	60	61	–	4	4

Other nurses and attendants	128	150	278	3	7	10
Occupational therapists	–	5	5	–	–	–
Social workers	–	3	3	–	1	1
All other officers and employees	140	85	225	11	4	15
Total officers and employees	284	304	588	16	16	32

Census of Patient Population at end of year (Classification by Diagnosis, September 30, 1935):

	Actually in Hospital			Absent from Hospital but still on Books		
WHITE:	M.	F.	T.	M.	F.	T.
Insane	1,068	1,090	2,158	178	211	389
Epileptics	–	–	–	1	–	1
Mental defectives	3	–	3	–	–	–
All other cases	6	5	11	3	7	10
Total	1,077	1,095	2,172	182	218	400
OTHER RACES:						
Insane	27	25	52	2	4	6
Mental defectives	1	1	2	–	–	–
Total	28	26	54	2	4	6
Grand Total	1,105	1,121	2,226	184	222	406

	M.	F.	T.
Patients under treatment in occupational-therapy classes, including physical training, on date of report	84	193	277
Other patients employed in general work of hospital on date of report	425	263	688
Average daily number of all patients actually in hospital during year	1,100.02	1,112.62	2,212.64
Voluntary patients admitted during year	6	7	13
Persons given advice or treatment in out-patient clinics during year	270	225	495

TABLE 2. *Movement of Patient Population for the Year Ended September 30, 1935*

	TOTAL			REGULAR COURT COMMITMENT (INSANE)			OBSERVATION			TEMPORARY CARE			VOLUNTARY		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1934	1,286	1,371	2,657	1,282	1,364	2,646	2	6	8	2	–	2	–	1	1
Admissions during year:															
First admissions	318	234	552	249	196	445	53	29	82	11	8	19	5	1	6
Readmissions	81	69	150	58	50	108	18	12	30	3	1	4	2	6	8
Total admissions	399	303	702	307	246	553	71	41	112	14	9	23	7	7	14
Transfers from other mental hospitals	19	15	34	19	15	34	–	–	–	–	–	–	–	–	–
Total received during year	418	318	736	326	261	587	71	41	112	14	9	23	7	7	14
Total on books during year	1,704	1,689	3,393	1,608	1,625	3,233	73	47	120	16	9	25	7	8	15
Discharged from books during year:															
As recovered	36	23	59	24	11	35	10	10	20	2	1	3	–	1	1
As improved	114	120	234	113	117	230	1	2	3	–	1	1	–	–	–
As unimproved	28	19	47	19	15	34	6	2	8	1	1	2	2	1	3
As without psychosis	57	36	93	2	1	3	46	28	74	6	4	10	3	3	6
Total discharged to community	235	198	433	158	144	302	63	42	105	9	7	16	5	5	10
Transferred to other mental hospitals	54	17	71	54	17	71	–	–	–	–	–	–	–	–	–
Died during year	126	131	257	113	127	240	6	1	7	7	2	9	–	1	1
Total discharged, transferred and died during year	415	346	761	325	288	613	69	43	112	16	9	25	5	6	11
Patients remaining on books of hospital at end of year:															
In hospital	1,105	1,121	2,226	1,099	1,115	2,214	4	4	8	–	–	–	2	2	4
On parole or otherwise absent	184	222	406	184	222	406	–	–	–	–	–	–	–	–	–
Total	1,289	1,343	2,632	1,283	1,337	2,620	4	4	8	–	–	–	2	2	4

SUPPLEMENTARY DATA

	Males	Females	Total
Average daily number of patients on books during year	1,280.26	1,345.38	2,625.64
Actually in institution during year	1,091.68	1,112.63	2,204.31
In family care	23.25	75.00	98.25
On visit	152.75	154.33	307.08
On escape	12.58	3.41	15.99
Number of patients actually remaining in institution September 30, 1935:			
State	1,035	1,002	2,037
Reimbursing	70	119	189
Ex-service patients paid by Federal Government	1	–	1
Number of patients in family care September 30, 1935	23	80	103
State	18	62	80
Private	5	18	23
Number of non-insane patients in hospital at end of institution year:			
Mentally defective	4	1	5
Others	6	5	11

TABLE 3. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States[1]	154	121	275	65	57	43	53	58	46
Africa	–	–	–	1	–	–	–	–	–
Canada[2]	20	31	51	36	42	29	42	38	32
Czecho-Slovakia	–	–	–	–	1	–	1	1	1
Cuba	1	–	1	1	1	1	–	–	–
Denmark	1	–	1	1	1	1	–	–	–
England	10	4	14	12	13	7	7	4	3
Finland	1	4	5	2	2	2	6	6	6
France	–	–	–	1	–	–	–	–	–
Germany	1	–	1	7	6	5	2	2	2
Greece	4	–	4	6	5	5	–	–	–
Ireland	10	17	27	31	33	24	36	36	32
Italy	13	5	18	19	18	18	6	6	6
Norway	–	1	1	–	–	–	1	1	1
Poland	7	3	10	12	11	11	6	6	6
Portugal	1	–	1	1	1	1	2	2	2
Russia	2	–	2	5	6	5	1	–	–
Scotland	2	1	3	3	5	3	4	4	3
South America	–	–	–	–	1	–	–	–	–
Sweden	7	6	13	11	11	11	6	6	6
Turkey in Asia	1	–	1	1	1	1	–	–	–
Other Countries	11	3	14	13	13	13	4	4	4
Unknown	3	–	3	21	21	18	19	22	18
Total	249	196	445	249	249	198	196	196	168

[1]Persons born in Hawaii, Porto Rico and the Virgin Islands should be recorded as born in the U. S.
[2]Includes Newfoundland.

TABLE 4. *Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born*

AGE YEARS	Aggregate			NATIVE BORN												FOREIGN BORN															Nativity Unknown		
				Total			PARENTAGE									Total			TIME IN UNITED STATES BEFORE ADMISSION														
							Native			Foreign			Mixed			Unknown				Under 5 years			5–9 years			10–14 years			15 years and over			Unknown					
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0–14	1	–	1	1	–	1	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
15–19	11	8	19	11	7	18	6	3	9	–	4	4	5	–	5	–	–	–	–	1	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
20–24	26	9	35	23	7	30	2	3	5	11	2	13	7	2	9	3	–	3	3	2	5	–	–	–	1	–	1	–	1	1	1	1	2	1	–	1	–	–	–
25–29	15	14	29	13	12	25	–	3	3	6	5	11	5	4	9	2	–	2	1	2	3	–	–	–	–	1	1	–	–	–	1	1	2	–	–	–	1	–	1
30–34	24	12	36	18	10	28	7	7	14	5	3	8	4	–	4	2	–	2	5	2	7	–	–	–	–	–	–	1	1	2	3	1	4	1	–	1	1	–	1
35–39	19	19	38	15	14	29	4	3	7	6	3	9	5	5	10	–	3	3	4	5	9	–	–	–	–	–	–	1	1	2	3	4	7	–	–	–	–	–	–
40–44	22	26	48	12	18	30	4	5	9	5	10	15	3	1	4	–	2	2	10	8	18	–	–	–	–	1	1	1	–	1	9	7	16	–	–	–	–	–	–
45–49	15	15	30	6	10	16	–	4	4	2	2	4	3	3	6	1	1	2	9	5	14	–	–	–	–	–	–	–	–	–	9	5	14	–	–	–	–	–	–
50–54	27	16	43	16	5	21	6	2	8	6	2	8	4	1	5	–	–	–	10	11	21	1	–	1	–	1	1	–	1	1	9	8	17	–	1	1	1	–	1
55–59	15	18	33	7	9	16	3	3	6	2	2	4	1	3	4	1	1	2	8	9	17	–	–	–	–	–	–	–	1	1	6	7	13	2	1	3	–	–	–
60–64	22	9	31	9	4	13	4	1	5	2	1	3	3	1	4	–	1	1	13	5	18	–	–	–	–	–	–	1	–	1	10	5	15	2	–	2	–	–	–
65–69	20	14	34	9	6	15	–	4	4	3	1	4	5	1	6	1	–	1	11	8	19	–	–	–	–	–	–	–	–	–	9	6	15	2	2	4	–	–	–
70–74	16	16	32	7	8	15	2	4	6	2	2	4	2	–	2	1	2	3	9	8	17	–	–	–	–	–	–	–	–	–	8	7	15	1	1	2	–	–	–
75–79	6	10	16	4	3	7	3	1	4	1	1	2	–	–	–	–	1	1	2	7	9	–	–	–	–	–	–	–	–	–	1	5	6	1	2	3	–	–	–
80–84	8	7	15	3	6	9	1	3	4	1	1	2	1	1	2	–	1	1	5	1	6	–	–	–	–	–	–	–	–	–	5	1	6	–	–	–	–	–	–
85 and over	2	3	5	–	2	2	–	–	–	–	–	–	–	–	–	–	2	2	2	1	3	–	–	–	–	–	–	–	–	–	2	1	3	–	–	–	–	–	–
Total	249	196	445	154	121	275	42	46	88	53	39	92	48	22	70	11	14	25	92	75	167	1	–	1	1	3	4	4	6	10	76	59	135	10	7	17	3	–	3

TABLE 5. *Citizenship of First Admissions*

	Males	Females	Total
Citizens by birth	154	121	275
Citizens by naturalization	26	5	31
Aliens	43	37	80
Citizenship unknown	26	33	59
Total	249	196	445

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			With syphilitic meningo-encephalitis			With other forms of syphilis			With other infectious diseases			Alcoholic psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	9	2	11	3	–	3	–	–	–	–	–	–	3	–	3
Cuban	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
English	13	8	21	3	1	4	1	–	1	–	–	–	1	–	1
Finnish	2	6	8	–	–	–	–	–	–	–	–	–	1	1	2
French	30	33	63	6	6	12	–	–	–	–	–	–	2	1	3
German	5	2	7	2	–	2	–	–	–	–	–	–	–	–	–
Greek	5	–	5	1	–	1	–	–	–	–	–	–	–	–	–
Hebrew	6	3	9	2	–	2	1	–	1	–	–	–	–	–	–
Irish	35	40	75	2	1	3	1	–	1	–	–	–	9	1	10
Italian [1]	19	7	26	6	–	6	–	–	–	–	1	1	–	–	–
Lithuanian	10	4	14	–	1	1	–	–	–	–	–	–	1	–	1
Portuguese	1	2	3	–	–	–	–	–	–	–	–	–	–	–	–
Scandinavian [2]	12	7	19	1	–	1	–	–	–	–	–	–	1	–	1
Scotch	5	3	8	–	–	–	–	–	–	–	–	–	–	–	–
Slavonic [3]	12	4	16	–	–	–	–	–	–	–	–	–	3	–	3
Syrian	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–
Other specific races	2	–	2	1	–	1	–	–	–	–	–	–	–	–	–
Mixed	70	61	131	6	4	10	–	1	1	–	1	1	6	1	7
Race unknown	10	14	24	2	–	2	–	1	1	–	–	–	1	–	1
Total	249	196	445	35	13	48	3	2	5	–	2	2	28	4	32

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses* — Continued

RACE	Due to drugs, etc.			With cerebral arterio-sclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Senile psychoses			Involutional psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T
African (black)	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Cuban	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
English	–	–	–	1	1	2	–	–	–	–	1	1	3	1	4	–	1	1
Finnish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
French	–	–	–	6	4	10	1	–	1	–	1	1	4	6	10	–	3	3
German	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	1	–	1
Greek	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Hebrew	1	–	1	–	2	2	–	–	–	–	–	–	1	–	1	–	–	–
Irish	–	–	–	8	9	17	1	–	1	–	–	–	2	12	14	–	3	3
Italian [1]	–	–	–	2	–	2	–	–	–	–	–	–	–	–	–	1	–	1
Lithuanian	–	–	–	–	1	1	–	–	–	–	–	–	2	–	2	1	–	1
Portuguese	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Scandinavian [2]	–	–	–	3	1	4	1	–	1	–	–	–	–	1	1	2	2	4
Scotch	–	–	–	3	–	3	–	–	–	–	–	–	–	2	2	1	1	2
Slavonic [3]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	2
Syrian	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other specific races	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mixed	1	–	1	15	6	21	–	–	–	–	–	–	3	10	13	4	1	5
Race unknown	–	–	–	1	3	4	–	–	–	–	–	–	–	5	5	–	–	–
Total	2	–	2	42	27	69	3	–	3	–	2	2	15	37	52	13	11	24

[1]Includes "North" and "South."
[2]Norwegians, Danes and Swedes.
[3]Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses* — Continued

RACE	Due to other metabolic diseases, etc.			Due to new growth			With organic changes of nervous system			Psycho-neuroses			Manic-depressive psychoses			Dementia praecox		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Cuban	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English	1	–	1	–	–	–	–	–	–	1	1	2	1	–	1	–	2	2
Finnish	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	1	2	3
French	–	1	1	–	–	–	2	–	2	1	1	2	1	1	2	5	7	12
German	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	1	1	2
Greek	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	2	–	2
Hebrew	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2
Irish	–	–	–	–	–	–	1	–	1	2	3	5	1	2	3	5	9	14
Italian[1]	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2	4	2	6
Lithuanian	1	–	1	–	–	–	–	–	–	1	–	1	1	–	1	2	2	4
Portuguese	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2
Scandinavian[2]	–	1	1	–	–	–	1	–	1	–	–	–	1	–	1	1	2	3
Scotch	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Slavonic[3]	–	–	–	–	–	–	–	–	–	–	1	1	1	–	1	1	2	3
Syrian	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Other specific races	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Mixed	4	–	4	–	–	–	1	2	3	3	6	9	5	7	12	16	17	33
Race unknown	1	–	1	–	–	–	–	–	–	–	1	1	2	1	3	3	3	6
Total	7	2	9	1	–	1	5	2	7	8	14	22	14	14	28	46	51	97

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses* — Concluded

RACE	Paranoia and paranoid conditions			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychoses			Primary behavior disorders		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	–	–	–	–	–	–	–	–	–	–	–	–	1	2	3	–	–	–
Cuban	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Finnish	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
French	–	2	2	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–
German	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Greek	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hebrew	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Irish	1	–	1	–	–	–	–	–	–	1	–	1	1	–	1	–	–	–
Italian[1]	2	2	4	–	–	–	3	–	3	1	–	1	–	–	–	–	–	–
Lithuanian	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Portuguese	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Scandinavian[2]	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Scotch	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Slavonic[3]	2	–	2	–	–	–	1	1	2	–	–	–	1	–	1	1	–	1
Syrian	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other specific races	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mixed	1	4	5	4	–	4	1	–	1	–	–	–	–	–	–	–	1	1
Race unknown	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	8	10	18	6	–	6	7	2	9	2	–	2	3	2	5	1	1	2

[1]Includes "North" and "South".
[2]Norwegians, Danes and Swedes.
[3]Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	TOTAL			0–14 years			15–19 years			20–24 years			25–29 years			30–34 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	35	13	48	–	–	–	–	1	1	2	–	2	1	–	1	4	2	6
With other forms of syphilis	3	2	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	28	4	32	–	–	–	–	–	–	–	–	–	1	–	1	2	–	2
Due to drugs, etc.	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	42	27	69	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other disturbances of circulation	3	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	2	2	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–
Senile psychoses	15	37	52	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Involutional psychoses	13	11	24	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Due to other metabolic diseases, etc.	7	2	9	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
Due to new growth	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	5	2	7	–	–	–	–	–	–	1	–	1	1	–	1	–	–	–
Psychoneuroses	8	14	22	–	–	–	1	–	1	1	2	3	1	4	5	1	2	3
Manic-depressive psychoses	14	14	28	–	–	–	–	–	–	1	1	2	2	4	6	5	2	7
Dementia praecox	46	51	97	–	–	–	5	5	10	18	5	23	7	4	11	10	5	15
Paranoia and paranoid conditions	8	10	18	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With psychopathic personality	6	–	6	–	–	–	2	–	2	–	–	–	1	–	1	1	–	1
With mental deficiency	7	2	9	–	–	–	1	–	1	2	–	2	1	1	2	1	1	2
Undiagnosed psychoses	2	–	2	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Without psychoses	3	2	5	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–
Primary behavior disorders	1	1	2	1	–	1	–	1	1	–	–	–	–	–	–	–	–	–
Total	249	196	445	1	–	1	11	8	19	26	9	35	15	14	29	24	12	36

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses* — Continued

PSYCHOSES	35–39 years			40–44 years			45–49 years			50–54 years			55–59 years			60–64 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	7	3	10	6	2	8	2	3	5	7	1	8	2	1	3	3	–	3
With other forms of syphilis	–	1	1	–	–	–	–	–	–	–	–	–	–	1	1	1	–	1
With other infectious diseases	–	1	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
Alcoholic psychoses	2	–	2	6	1	7	5	1	6	5	1	6	2	1	3	2	–	2
Due to drugs, etc.	–	–	–	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	–	–	–	–	1	1	1	–	1	1	3	4	2	2	4	7	5	12
With other disturbances of circulation	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
With convulsive disorders (epilepsy)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	–	–	–	–	–	–	–	–	–	–	1	1	1	1	2	5	2	7
Involutional psychoses	–	–	–	1	2	3	2	3	5	6	2	8	3	3	6	1	1	2
Due to other metabolic diseases, etc.	1	–	1	1	–	1	–	–	–	–	2	2	2	–	2	1	–	1
Due to new growth	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	1	–	1	1	–	1	–	–	–	–	–	–	–	1	1	–	–	–
Psychoneuroses	1	1	2	–	2	2	1	–	1	2	1	3	–	2	2	–	–	–
Manic-depressive psychoses	1	3	4	1	2	3	1	–	1	2	1	3	–	1	1	–	–	–
Dementia praecox	2	10	12	1	13	14	–	4	4	2	2	4	1	2	3	–	1	1
Paranoia and paranoid conditions	1	–	1	–	3	3	2	3	5	2	2	4	2	2	4	–	–	–
With psychopathic personality	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
With mental deficiency	–	–	–	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–
Undiagnosed psychoses	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Without psychoses	1	–	1	1	–	1	–	1	1	–	–	–	–	–	–	–	–	–
Primary behavior disorders	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	19	19	38	22	26	48	15	15	30	27	16	43	15	18	33	22	9	31

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses* — Concluded

PSYCHOSES	65–69 years			70–74 years			75–79 years			80–84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With other forms of syphilis	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	3	–	3	–	–	–	–	–	–	–	–	–	–	–	–
Due to drugs, etc.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	9	3	12	11	8	19	5	3	8	5	1	6	1	1	2
With other disturbances of circulation	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	1	10	11	3	8	11	1	7	8	3	6	9	1	2	3
Involutional psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Due to other metabolic diseases, etc.	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Due to new growth	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–
Psychoneuroses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Manic-depressive psychoses	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Dementia praecox	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Paranoia and paranoid conditions	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
With psychopathic personality	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With mental deficiency	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Undiagnosed psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Without psychoses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Primary behavior disorders	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	20	14	34	16	16	32	6	10	16	8	7	15	2	3	5

TABLE 8. *Degree of Education of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Illiterate			Reads Only			Reads and Writes			Common School			High School			College			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	35	13	48	3	–	3	1	–	1	2	1	3	23	10	33	3	1	4	–	–	–	3	1	4
With other forms of syphilis	3	2	5	–	–	–	–	–	–	–	–	–	1	1	2	–	–	–	1	–	1	1	1	2
With other infectious diseases	–	2	2	–	–	–	–	–	–	–	–	–	–	2	2	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	28	4	32	2	–	2	–	–	–	2	–	2	20	4	24	3	–	3	–	–	–	1	–	1
Due to drugs, etc.	2	–	2	–	–	–	–	–	–	–	–	–	1	–	1	1	–	1	–	–	–	–	–	–
With cerebral arteriosclerosis	42	27	69	3	2	5	1	–	1	3	3	6	19	11	30	4	1	5	1	1	2	11	9	20
With other disturbances of circulation	3	–	3	–	–	–	–	–	–	–	–	–	2	–	2	–	–	–	–	–	–	1	–	1
With convulsive disorders (epilepsy)	–	2	2	–	–	–	–	–	–	–	–	–	–	2	2	–	–	–	–	–	–	–	–	–
Senile psychoses	15	37	52	2	2	4	–	–	–	2	2	4	6	14	20	–	–	–	–	1	1	5	18	23
Involutional psychoses	13	11	24	1	–	1	1	–	1	3	–	3	5	9	14	1	1	2	–	–	–	2	1	3
Due to other metabolic diseases, etc.	7	2	9	–	–	–	–	–	–	1	–	1	4	1	5	–	–	–	–	–	–	2	1	3
Due to new growth	1	–	1	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	5	2	7	–	1	1	–	–	–	–	–	–	4	–	4	1	1	2	–	–	–	–	–	–
Psychoneuroses	8	14	22	–	–	–	–	–	–	–	–	–	6	4	10	1	8	9	–	–	–	1	2	3
Manic-depressive psychoses	14	14	28	1	–	1	–	–	–	–	–	–	7	7	14	2	5	7	2	–	2	2	2	4
Dementia praecox	46	51	97	–	–	–	–	–	–	2	3	5	21	26	47	16	14	30	3	2	5	4	6	10
Paranoia and paranoid conditions	8	10	18	4	1	5	1	–	1	–	–	–	2	5	7	–	1	1	1	–	1	–	3	3
With psychopathic personality	6	–	6	–	–	–	–	–	–	–	–	–	3	–	3	2	–	2	–	–	–	1	–	1
With mental deficiency	7	2	9	2	–	2	–	–	–	–	–	–	5	2	7	–	–	–	–	–	–	–	–	–
Undiagnosed psychoses	2	–	2	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Without psychoses	3	2	5	–	1	1	–	–	–	1	–	1	2	1	3	–	–	–	–	–	–	–	–	–
Primary behavior disorders	1	1	2	–	–	–	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–
Total	249	196	445	20	7	27	4	–	4	16	9	25	133	100	233	34	32	66	8	4	12	34	44	78

TABLE 9.—*Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			0–2,499			2,500–9,999			10,000–24,999			25,000–49,999			50,000–99,999			100,000–249,999			500,000+			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	35	13	48	–	–	–	5	1	6	3	–	3	2	1	3	2	–	2	14	10	24	9	1	10	–	–	–
With other forms of syphilis	3	2	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2	4	1	–	1	–	–	–
With other infectious diseases	–	2	2	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Alcoholic psychoses	28	4	32	–	–	–	2	–	2	3	–	3	–	–	–	–	–	–	18	4	22	4	–	4	1	–	1
Due to drugs, etc.	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
With cerebral arteriosclerosis	42	27	69	4	3	7	7	3	10	2	4	6	3	1	4	–	–	–	24	15	39	1	1	2	1	–	1
With other disturbances of circulation	3	–	3	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	2	–	2	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–
Senile psychoses	15	37	52	1	5	6	2	5	7	1	2	3	2	–	2	–	–	–	8	23	31	1	2	3	–	–	–
Involutional psychoses	13	11	24	2	1	3	–	2	2	–	–	–	1	1	2	–	–	–	10	6	16	–	–	–	–	1	1
Due to other metabolic diseases, etc.	7	2	9	–	–	–	1	1	2	2	–	2	1	–	1	–	–	–	3	1	4	–	–	–	–	–	–
Due to new growth	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
With organic changes of nervous system	5	2	7	–	–	–	2	–	2	1	–	1	–	–	–	–	1	1	2	1	3	–	–	–	–	–	–
Psychoneuroses	8	14	22	1	–	1	–	4	4	2	3	5	1	–	1	–	–	–	3	6	9	1	1	2	–	–	–
Manic-depressive psychoses	14	14	28	–	3	3	5	2	7	1	1	2	1	–	1	–	1	1	4	5	9	2	2	4	1	–	1
Dementia praecox	46	51	97	3	–	3	9	9	18	3	7	10	1	2	3	–	–	–	25	25	50	4	7	11	1	1	2
Paranoia and paranoid conditions	8	10	18	2	–	2	1	1	2	1	1	2	–	1	1	–	–	–	3	5	8	1	2	3	–	–	–
With psychopathic personality	6	–	6	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	4	–	4	1	–	1	–	–	–
With mental deficiency	7	2	9	2	–	2	–	–	–	–	1	1	1	1	2	–	–	–	3	–	3	1	–	1	–	–	–
Undiagnosed psychoses	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
Without psychoses	3	2	5	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2	1	3	–	–	–	1	–	1
Primary behavior disorders	1	1	2	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	249	196	445	16	12	28	35	29	64	22	20	42	13	7	20	2	3	5	130	106	236	26	17	43	5	2	7

TABLE 10. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Dependent			Marginal			Comfortable			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	35	13	48	1	10	11	32	3	35	–	–	–	2	–	2
With other forms of syphilis	3	2	5	2	1	3	1	–	1	–	–	–	–	1	1
With other infectious diseases	–	2	2	–	–	–	–	2	2	–	–	–	–	–	–
Alcoholic psychoses	28	4	32	2	–	2	25	3	28	–	–	–	1	1	2
Due to drugs, etc.	2	–	2	–	–	–	2	–	2	–	–	–	–	–	–
With cerebral arterio-sclerosis	42	27	69	8	21	29	30	–	30	–	2	2	4	4	8
With other disturbances of circulation	3	–	3	–	–	–	3	–	3	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	2	2	–	–	–	–	2	2	–	–	–	–	–	–
Senile psychoses	15	37	52	3	27	30	11	–	11	–	2	2	1	8	9
Involutional psychoses	13	11	24	2	9	11	10	–	10	–	–	–	1	2	3
Due to other metabolic diseases, etc.	7	2	9	–	–	–	7	1	8	–	–	–	–	1	1
Due to new growth	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	5	2	7	2	1	3	3	1	4	–	–	–	–	–	–
Psychoneuroses	8	14	22	–	10	10	8	3	11	–	–	–	–	1	1
Manic-depressive psychoses	14	14	28	–	9	9	11	2	13	1	1	2	2	2	4
Dementia praecox	46	51	97	8	37	45	34	4	38	–	3	3	4	7	11
Paranoia and paranoid conditions	8	10	18	–	2	2	8	6	14	–	–	–	–	2	2
With psychopathic personality	6	–	6	1	–	1	5	–	5	–	–	–	–	–	–
With mental deficiency	7	2	9	–	1	1	7	1	8	–	–	–	–	–	–
Undiagnosed psychoses	2	–	2	1	–	1	1	–	1	–	–	–	–	–	–
Without psychoses	3	2	5	2	1	3	1	1	2	–	–	–	–	–	–
Primary behavior disorders	1	1	2	1	1	2	–	–	–	–	–	–	–	–	–
Total	249	196	445	34	130	164	199	29	228	1	8	9	15	29	44

TABLE 11. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	35	13	48	9	3	12	12	10	22	10	–	10	4	–	4
With other forms of syphilis	3	2	5	–	–	–	1	–	1	2	1	3	–	1	1
With other infectious diseases	–	2	2	–	2	2	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	28	4	32	–	–	–	–	–	–	28	4	32	–	–	–
Due to drugs, etc.	2	–	2	1	–	1	1	–	1	–	–	–	–	–	–
With cerebral arterio-sclerosis	42	27	69	8	7	15	12	19	31	11	–	11	11	1	12
With other disturbances of circulation	3	–	3	2	–	2	–	–	–	1	–	1	–	–	–
Withe convulsive disorders (epilepsy)	–	2	2	–	1	1	–	–	–	–	–	–	–	1	1
Senile psychoses	15	37	52	8	9	17	2	23	25	1	–	1	4	5	9
Involutional psychoses	13	11	24	2	–	2	7	10	17	3	–	3	1	1	2
Due to other metabolic diseases, etc.	7	2	9	–	2	2	3	–	3	3	–	3	1	–	1
Due to new growth	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	5	2	7	5	1	6	–	1	1	–	–	–	–	–	–
Psychoneuroses	8	14	22	2	2	4	3	12	15	3	–	3	–	–	–
Manic depressive psychoses	14	14	28	1	–	1	7	13	20	3	–	3	3	1	4
Dementia praecox	46	51	97	25	10	35	11	40	51	6	–	6	4	1	5
Paranoia and paranoid conditions	8	10	18	3	4	7	2	5	7	3	–	3	–	1	1
With psychopathic personality	6	–	6	1	–	1	1	–	1	2	–	2	2	–	2
With mental deficiency	7	2	9	6	2	8	1	–	1	–	–	–	–	–	–
Undiagnosed psychoses	2	–	2	1	–	1	–	–	–	1	–	1	–	–	–
Without psychoses	3	2	5	1	1	2	1	–	1	1	–	1	–	1	1
Primary behavior disorders	1	1	2	1	1	2	–	–	–	–	–	–	–	–	–
Total	249	196	445	77	45	122	64	133	197	78	5	83	30	13	43

TABLE 12. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Single			Married			Widowed			Divorced			Separated			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	35	13	48	9	2	11	19	9	28	2	–	2	4	1	5	1	1	2	–	–	–
With other forms of syphilis	3	2	5	1	–	1	–	–	–	1	1	2	1	–	1	–	1	1	–	–	–
With other infectious diseases	–	2	2	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	28	4	32	11	–	11	9	3	12	6	1	7	1	–	1	1	–	1	–	–	–
Due to drugs, etc.	2	–	2	–	–	–	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	42	27	69	13	4	17	12	6	18	14	15	29	1	1	2	–	1	1	2	–	2
With other disturbances of circulation	3	–	3	1	–	1	1	–	1	–	–	–	1	–	1	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	2	2	–	1	1	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Senile psychoses	15	37	52	4	7	11	4	10	14	5	17	22	–	3	3	1	–	1	1	–	1
Involutional psychoses	13	11	24	1	3	4	9	7	16	2	1	3	–	–	–	1	–	1	–	–	–
Due to other metabolic diseases, etc.	7	2	9	5	1	6	1	1	2	1	–	1	–	–	–	–	–	–	–	–	–
Due to new growth	1	–	1	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	5	2	7	4	1	5	1	–	1	–	1	1	–	–	–	–	–	–	–	–	–
Psychoneuroses	8	14	22	3	7	10	4	5	9	1	2	3	–	–	–	–	–	–	–	–	–
Manic-depressive psychoses	14	14	28	6	1	7	7	13	20	1	–	1	–	–	–	–	–	–	–	–	–
Dementia praecox	46	51	97	40	28	68	5	16	21	–	4	4	1	3	4	–	–	–	–	–	–
Paranoia and paranoid conditions	8	10	18	2	4	6	6	5	11	–	1	1	–	–	–	–	–	–	–	–	–
With psychopathic personality	6	–	6	3	–	3	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–
With mental deficiency	7	2	9	7	1	8	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Undiagnosed psychoses	2	–	2	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Without psychoses	3	2	5	2	2	4	–	–	–	–	–	–	1	–	1	–	–	–	–	–	
Primary behavior disorders	1	1	2	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	249	196	445	114	64	178	84	77	161	33	43	76	10	9	19	5	3	8	3	–	3

TABLE 13. *Mental Disorders of All Admissions, All Discharges, All Deaths, 1935, All Cases in Residence and All Cases Out on September 30, 1935, by Status of Admission and Sex*

MENTAL DISORDERS	ALL ADMISSIONS						ALL DISCHARGES						ALL DEATHS						RESIDENT POPULATION						PATIENTS OUT ON VISIT ETC.					
	First Admissions			Read-missions			First Admissions			Read-msisions			First Admissions			Read-missions			First Admissions			Read-missions			First Admissions			Read-missions		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Psychoses Due to or Associated with Infection:																														
Syphilis of the Central Nervous System:																														
Meningo-encephalitic type (general paresis)	35	13	48	7	–	7	4	4	8	7	–	7	21	9	30	10	–	10	65	23	88	33	6	39	12	8	20	9	–	9
Meningo-vascular type (cerebral syphilis)	2	2	4	–	–	–	2	–	2	–	–	–	1	1	2	–	–	–	1	2	3	2	–	2	4	1	5	–	1	1
With intracranial gumma	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	1	–	1	–	–	–	–	–	–
Other types	1	–	1	–	–	–	–	2	2	–	–	–	1	2	3	–	–	–	2	5	7	–	–	–	–	1	1	–	–	–
With epidemic encephalitis	–	–	–	–	–	–	1	–	1	–	–	–	1	–	1	–	–	–	8	6	14	2	1	3	–	–	–	–	–	–
With other infectious disease	1	–	1	–	–	–	–	1	1	–	–	–	1	–	1	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–
Post-infectious psychoses	–	2	2	–	–	–	–	3	3	–	–	–	–	1	1	–	–	–	–	–	–	–	1	1	–	2	2	–	–	–
Psychoses Due to Intoxication:																														
Due to Alcohol:																														
Pathological intoxication	2	3	5	–	–	–	16	2	18	3	–	3	1	–	1	–	–	–	27	1	28	6	–	6	3	–	3	–	–	–
Delirium tremens	2	–	2	–	–	–	1	–	1	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Korsakow's psychosis	4	1	5	–	–	–	1	–	1	–	–	–	1	–	1	–	–	–	5	2	7	1	3	4	2	–	2	–	1	1
Acute hallucinosis	11	2	13	2	–	2	8	2	10	–	–	–	–	–	–	–	–	–	17	–	17	3	–	3	4	–	4	2	–	2
Other types	15	3	18	12	–	12	10	6	16	7	3	10	2	–	2	2	1	3	52	4	56	33	3	36	10	1	11	9	1	10
Due to Drugs and Other Exogenous Poisons:																														
Due to gases	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	2	–	2	–	–	–	–	–	–	–	–	–
Due to other drugs	1	1	2	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Psychoses Due to Trauma:																														
Traumatic delirium	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–
Post-traumatic personality disorders	1	–	1	–	–	–	1	–	1	–	–	–	1	–	1	–	–	–	–	–	–	2	–	2	–	–	–	–	–	–
Post-traumatic mental deterioration	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	1	–	1	–	–	–	–	–	–
Other types	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Psychoses Due to Disturbance of Circulation:																														
With cerebral arteriosclerosis	48	27	75	4	4	8	20	11	31	1	3	4	28	21	49	2	3	5	54	42	96	14	7	21	12	14	26	1	3	4
With cerebral embolism	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
With cardio-renal disease	5	–	5	–	–	–	1	1	2	–	–	–	4	–	4	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Other types	1	1	2	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Psychoses Due to Convulsive Disorders (Epilepsy):																														
Epileptic deterioration	–	–	–	–	–	–	1	–	1	–	–	–	–	1	1	–	–	–	3	4	7	4	1	5	–	–	–	–	–	–
Epileptic clouded states	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
Other epileptic types	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2	4	1	1	2	–	1	1	–	–	–

TABLE 13. *Mental Disorders of All Admissions, All Discharges, All Deaths, 1935, All Cases in Residence and All Cases Out on September 30, 1935, by Status of Admission and Sex* — Concluded

Mental Disorders	All Admissions						All Discharges						All Deaths						Resident Population						Patients Out on Visit etc.					
	First Admissions			Readmissions			First Admissions			Readmissions			First Admissions			Readmissions			First Admissions			Readmissions			First Admissions			Readmissions		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Psychoses Due to Disturbances of Metabolism, Growth, Nutrition or Endocrine Function:																														
Senile Psychoses:																														
Simple deterioration	10	11	21	1	2	3	–	1	1	–	1	1	10	17	27	1	1	2	13	25	38	4	8	12	3	1	4	–	1	1
Presbyophrenic type	–	1	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	2	2	–	1	1	–	–	–	–	–	–
Delirious and confused types	–	14	14	–	–	–	–	1	1	–	–	–	–	10	10	–	1	1	–	5	5	–	–	–	–	1	1	–	–	–
Depressed and agitated types	3	–	3	–	–	–	–	–	–	–	–	–	–	3	3	1	–	1	3	2	5	2	–	2	–	1	1	–	–	–
Paranoid types	4	13	17	–	4	4	1	2	3	–	–	–	4	6	10	–	–	–	6	19	25	–	6	6	2	3	5	–	2	2
Involutional psychoses:																														
Melancholia	7	10	17	–	–	–	3	3	6	–	2	2	2	4	6	1	1	2	11	17	28	3	–	3	1	8	9	–	–	–
Paranoid types	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	3	3	1	4	5	–	1	1	–	–	–
Other types	6	1	7	1	–	1	1	2	3	1	–	1	–	–	–	–	–	–	5	6	11	1	2	3	4	3	7	–	1	1
With diseases of the endocrine glands	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–	–	–	–	1	1	2	–	–	–	1	–	1	–	–	–
Exhaustion delirium	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With pellagra	1	–	1	–	–	–	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other somatic diseases	7	3	10	–	1	1	2	–	2	1	1	2	3	3	6	–	2	2	6	3	9	–	1	1	2	2	4	–	2	2
Psychoses Due to New Growth:																														
With intracranial neoplasms	1	1	2	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Psychoses Due to Unknown or Hereditary Causes, but Associated with Organic Changes:																														
With multiple sclerosis	–	–	–	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	2	–	2	–	2	2	–	–	–	–	–	–
With paralysis agitans	–	1	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With Huntington's chorea	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	2	2	4	–	–	–	–	–	–	–	–	–
With other brain or nervous diseases	6	–	6	1	–	1	1	1	2	–	1	1	1	2	3	1	–	1	6	1	7	2	4	6	2	2	4	–	3	3
Disorders of Psychogenic Origin or Without Clearly Defined Tangible Cause or Structural Change:																														
Psychoneuroses:																														
Anxiety hysteria	–	5	5	–	2	2	–	–	–	–	1	1	–	–	–	–	–	–	–	2	2	–	1	1	–	3	3	–	–	–
Conversion hysteria:																														
Autonomic type	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Mixed hysterical psychoneurosis	–	1	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	1	1	–	1	1	–	2	2	–	–	–
Psychasthenia or compulsive states:																														
Obsession	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	1	–	1	–	1	1
Phobia	1	–	1	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mixed compulsive states	1	1	2	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	1	–	1	–	–	–

Neurasthenia	–	–	–	1	–	1	–	1	1	1	–	1	–	–	–	1	–	1	–	–	–	3	–	3	–	1	1	1	–	1
Hypochondriasis	1	–	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	2	2	1	–	1	1	–	1	–	–	–
Reactive depression	3	9	12	–	–	–	4	5	9	–	2	2	1	–	1	–	–	–	2	3	5	–	–	–	–	4	4	–	–	–
Anxiety state	3	2	5	1	–	1	2	–	2	1	2	3	–	–	–	–	–	–	–	1	1	–	1	1	2	1	3	1	–	1
Mixed psychoneurosis	4	2	6	–	1	1	2	2	4	2	–	2	–	–	–	–	–	–	4	2	6	–	1	1	–	2	2	–	3	3
Manic-depressive psychoses:																														
Manic type	9	4	13	5	7	12	6	2	8	4	8	12	–	–	–	–	1	1	6	6	12	16	27	43	3	6	9	3	6	9
Depressive type	3	9	12	6	3	9	5	4	9	1	2	3	1	2	3	1	–	1	7	7	14	11	6	17	3	5	8	2	3	5
Circular type	–	1	1	1	–	1	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2	–	1	1	–	1	1
Mixed type	1	–	1	1	–	1	–	1	1	–	1	1	–	–	–	–	–	–	–	4	4	2	3	5	1	–	1	1	3	4
Perplexed type	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	1	1	–	–	–
Other types	2	–	2	–	–	–	1	–	1	1	3	4	–	2	2	1	–	1	6	1	7	2	4	6	–	–	–	2	–	2
Dementia praecox (schizophrenia):																														
Simple type	3	2	5	–	–	–	1	1	2	–	–	–	–	–	–	1	1	2	19	7	26	13	4	17	4	2	6	2	–	2
Hebephrenic type	6	7	13	2	4	6	4	3	7	4	1	5	2	–	2	–	2	2	50	82	132	33	110	143	2	11	13	2	4	6
Catatonic type	10	8	18	1	2	3	2	4	6	1	1	2	1	3	4	–	–	–	34	52	86	33	56	89	11	9	20	3	3	6
Paranoid type	11	22	33	5	5	10	10	10	20	–	4	4	4	4	8	1	11	12	103	120	223	51	84	135	7	15	22	–	5	5
Other types	16	12	28	9	7	16	6	9	15	7	9	16	4	3	7	–	1	1	108	69	177	58	54	112	15	16	31	9	18	27
Paranoia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	4	–	4	4	–	–	–	–	–	–
Paranoid conditions	8	11	19	–	6	6	6	10	16	2	1	3	1	1	2	–	1	1	21	44	65	9	22	31	6	9	15	1	4	5
With psychopathic personality	6	–	6	1	1	2	–	1	1	2	2	4	–	–	–	1	–	1	10	9	19	3	6	9	4	–	4	1	1	2
With mental deficiency:																														
Idiot	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	4	8	1	2	3	–	–	–	–	1	1
Imbecile	1	–	1	–	–	–	–	1	1	1	–	1	1	–	1	–	1	1	12	19	31	8	9	17	2	2	4	1	–	1
Moron	7	2	9	1	–	1	1	1	2	2	2	4	–	1	1	–	1	1	25	22	47	15	14	29	3	1	4	–	4	4
Unknown	–	–	–	–	–	–	1	–	1	–	1	1	–	–	–	–	1	1	4	7	11	3	3	6	1	1	2	–	–	–
Undiagnosed Psychoses:	2	–	2	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	1	–	1	–	7	7
Without Psychosis:																														
Alcoholism	8	1	9	6	2	8	9	1	10	7	2	9	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Disorders due to epidemic encephalitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Psychopathic personality:																														
With pathological sexuality	2	–	2	1	–	1	2	–	2	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With pathological emotionality	1	2	3	–	3	3	1	2	3	–	2	2	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
With asocial or amoral trends	1	–	1	1	2	3	1	–	1	1	3	4	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Mixed types	–	–	–	3	–	3	–	–	–	3	–	3	–	–	–	–	–	–	–	2	2	–	–	–	1	–	1	–	–	–
Epilepsy	2	2	4	–	–	–	2	2	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mental deficiency:																														
Imbecile	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	1	–	1	–	–	–	–	–	–
Moron	6	1	7	–	2	2	4	–	4	1	3	4	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–
Other non-psychotic diseases or conditions	20	10	30	5	4	9	17	10	27	4	4	8	1	–	1	–	1	1	2	1	3	1	–	1	–	–	–	–	–	–
No other condition	4	5	9	1	1	2	3	5	8	1	1	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
Primary Behavior Disorders:																														
Simple adult maladjustment	–	1	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Primary behavior disorders in children:																														
Conduct disturbances	1	1	2	–	2	2	–	2	2	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Grand Total	318	234	552	81	69	150	167	129	296	68	69	137	101	101	202	25	30	55	722	652	1,374	383	469	852	134	143	277	50	79	129

NOTE: — Admissions and discharges do not include transfers.

TABLE 14. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	11	4	15	1	–	1	10	4	14	–	–	–
With other forms of syphilis	2	2	4	–	–	–	2	2	4	–	–	–
With epidemic encephalitis	1	–	1	–	–	–	1	–	1	–	–	–
With other infectious diseases	–	4	4	–	1	1	–	3	3	–	–	–
Alcoholic psychoses	41	8	49	9	2	11	30	6	36	2	–	2
Due to drugs, etc.	1	–	1	1	–	1	–	–	–	–	–	–
With cerebral arteriosclerosis	19	14	33	4	1	5	12	11	23	3	2	5
With other disturbances of circulation	1	1	2	–	–	–	1	1	2	–	–	–
With convulsive disorders (epilepsy)	1	1	2	–	–	–	–	–	–	1	1	2
Senile psychoses	–	4	4	–	–	–	–	3	3	–	1	1
Involutional psychoses	5	7	12	–	–	–	4	6	10	1	1	2
Due to other metabolic diseases, etc.	3	3	6	–	–	–	2	3	5	1	–	1
Due to new growth	1	–	1	–	–	–	–	–	–	1	–	1
With organic changes of nervous system	–	2	2	–	–	–	–	2	2	–	–	–
Psychoneuroses	7	11	18	1	1	2	5	10	15	1	–	1
Manic-depressive psychoses	17	22	39	5	1	6	12	20	32	–	1	1
Dementia praecox	33	42	75	3	4	7	22	30	52	8	8	16
Paranoia and paranoid conditions	8	10	18	–	–	–	7	9	16	1	1	2
With psychopathic personality	1	3	4	–	–	–	1	3	4	–	–	–
With mental deficiency	4	4	8	–	–	–	4	4	8	–	–	–
Without psychoses	2	1	3	–	–	–	–	–	–	–	–	–
Primary behavior disorders	–	1	1	–	1	1	–	–	–	–	–	–
Total	158	144	302	24	11	35	113	117	230	19	15	34

TABLE 15. *Hospital Residence during This Admission of Court First Admissions Discharged during 1935*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	4	4	8	.68	.28	.48
With other forms of syphilis	2	2	4	.49	.41	.45
With epidemic encephalitis	1	–	1	.20	–	.20
With other infectious diseases	–	4	4	–	.16	.16
Alcoholic psychoses	32	5	37	.95	.59	.90
Due to drugs, etc.	1	–	1	.20	–	.20
With cerebral arteriosclerosis	18	11	29	.34	.45	.38
With other disturbances of circulation	1	1	2	.12	.20	.16
With convulsive disorders (epilepsy)	1	1	2	2.50	1.50	4.50
Senile psychoses	–	3	3	–	.23	.23
Involutional psychoses	4	5	9	.32	1.19	.80
Due to other metabolic diseases, etc.	2	1	3	.33	.94	.42
Due to new growth	1	–	1	.04	–	.04
With organic changes of nervous system	–	1	1	–	.29	.29
Psychoneuroses	5	7	12	.25	.43	.36
Manic-depressive psychoses	11	9	20	1.02	.65	.85
Dementia praecox	23	27	50	1.38	1.03	1.19
Paranoia and paranoid conditions	6	9	15	.21	.68	.47
With psychopathic personality	–	1	1	–	2.50	2.50
With mental deficiency	2	1	3	.29	.54	.37
Without psychoses	2	1	3	.16	.04	.12
Primary behavior disorders	–	1	1	–	.20	.20
Total	116	94	210	.83	.70	.77

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Mental Disorders*

CAUSES OF DEATH	Total			With syphilitic meningo-encephalitis			With other forms of syphilis			With epidemic encepha-alitis			With other infectious diseases			Alcoholic psychoses			Due to drugs, etc.			Traumatic psychoses			With cerebral arterio-sclerosis			With other disturbances of circulation		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Infectious and Parasitic Diseases:																														
Tuberculosis of the respiratory system	7	13	20	–	1	1	–	–	–	–	–	–	–	–	–	2	–	2	–	–	–	1	–	1	–	1	1	–	–	–
Tuberculosis of other organs	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Syphilis (non-nervous forms)	2	3	5	–	1	1	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Cancer and Other Tumors:																														
Cancer and other malignant tumors	6	7	13	2	–	2	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	2	1	3	–	–	–
Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases:																														
Acute rheumatic fever	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diabetes	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	1	1	–	–	–
Diseases of the Blood and Blood-Making Organs:																														
Leukemias and pseudo-leukemias	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Nervous System and Organs of Special Sense:																														
Cerebral hemorrhage	2	1	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Cerebral embolism and thrombosis	1	2	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
General paralysis of the insane	26	7	33	26	6	32	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Epilepsy	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the organs of special sense (eye, ear and mastoid)	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Circulatory System:																														
Chronic endocarditis (valvular disease)	3	5	8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Diseases of the myocardium	1	3	4	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the coronary arteries and angina pectoris	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases of the heart	3	5	8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Arteriosclerosis	5	5	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	1	4	1	–	1
Other diseases of the arteries	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Respiratory System:																														
Bronchopneumonia (including capillary bronchitis)	26	33	59	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	11	9	20	–	–	–
Lobar pneumonia	3	1	4	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
Asthma	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases (tuberculosis excepted)	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Digestive System:																														
Other diseases of the stomach (cancer excepted)	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–

Diarrhea and enteritis	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Appendicitis	–	1	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Hernia, intestinal obstruction	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases of the intestines	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cirrhosis of the liver	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Biliary calculi and other diseases of the gall bladder and biliary passages	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Genito-Urinary System:																												
Nephritis (acute, chronic and unspecified)	9	16	25	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	2	8	10	–	–	–
Diseases of the bladder (tumors excepted)	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of Pregnancy, Child-birth and the Puerperal State:	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Bones and Organs of Locomotion:																												
Other diseases of the bones (tuberculosis excepted)	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Violent and Accidental Deaths:																												
Suicide	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Conflagration and accidental burns	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Accidental traumatism	7	6	13	1	–	1	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	2	1	3	–	–	–
Other external causes	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
Total	113	127	240	31	9	40	2	3	5	1	–	1	–	1	1	5	1	6	1	–	1	2	–	2	26	24	50	1	–	1

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Mental Disorders* — Concluded

CAUSES OF DEATH	With convulsive disorders (epilepsy)			Senile psychoses			Involutional psychoses			Due to other metabolic diseases, etc.			With organic changes of nervous system			Psychoneurosis			Manic-depressive psychoses			Dementia praecox			Paranoia and paranoid conditions			With psychopathic personality			With mental deficiency		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Infectious and Parasitic Diseases:																																
Tuberculosis of the respiratory system	–	–	–	–	1	1	1	–	1	1	1	2	–	1	1	–	–	–	–	–	–	1	7	8	–	–	–	1	–	1	–	1	1
Tuberculosis of other organs	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Syphilis (non-nervous forms)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Cancer and Other Tumors:																																
Cancer and other malignant tumors	–	–	–	–	–	–	–	2	2	–	–	–	–	–	–	1	–	1	–	–	–	–	3	3	–	1	1	–	–	–	–	–	–
Rheumatic Diseases, Nutritional Diseases, Diseases of the Endocrine Glands and Other General Diseases:																																
Acute rheumatic fever	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diabetes	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Blood and Blood-Making Organs:																																
Leukemias and pseudo-leukemias	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	1	1
Diseases of the Nervous System and Organs of Special Sense:																																
Cerebral hemorrhage	–	–	–	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cerebral embolism and thrombosis	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
General paralysis of the insane	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Epilepsy	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the organs of special sense (eye, ear and mastoid)	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Diseases of the Circulatory System:																																
Chronic endocarditis (valvular disease)	–	–	–	–	1	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	1	2	3	–	–	–	–	–	–	1	1	2
Diseases of the myocardium	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–
Diseases of the coronary arteries and angina pectoris	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases of the heart	–	–	–	1	5	6	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Arteriosclerosis	–	–	–	1	1	2	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2	–	–	–	–	–	–	–	–	–
Other diseases of the arteries	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	1	1
Other diseases	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Respiratory System:																																
Bronchopneumonia (including capillary bronchitis)	–	–	–	10	18	28	–	1	1	–	1	1	–	1	1	–	–	–	1	1	2	1	1	2	1	1	2	–	–	–	–	–	–
Lobar pneumonia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	2	–	–	–	–	–	–	–	–	–
Asthma	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases (tuberculosis excepted)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–

Disease of the Digestive System:																																					
Other diseases of the stomach (cancer excepted)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diarrhea and enteritis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Appendicitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hernia, intestinal obstruction	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Other diseases of the intestines	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Cirrhosis of the liver	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Biliary calculi and other diseases of the gall bladder and biliary passages	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Genito-Urinary System:																																					
Nephritis (acute, chronic and unspecified)	–	–	–	1	3	4	–	–	–	1	–	1	1	–	1	–	–	–	1	1	2	2	3	5	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the bladder (tumors excepted)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of Pregnancy, Child-birth and the Puerperal State:	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diseases of the Bones and Organs of Locomotion:																																					
Other diseases of the bones (tuberculosis excepted)	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Violent and Accidental Deaths:																																					
Suicide	–	–	–	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Conflagration and accidental burns	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Accidental traumatism	–	–	–	1	4	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	1	3	–	–	–	–	–	–	–	–	–	–	–	–	–
Other external causes	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	–	1	1	15	38	53	3	6	9	3	5	8	2	3	5	2	–	2	3	5	8	13	25	38	1	2	3	1	–	1	1	4	5				

TABLE 17. *Age of Patients at Time of Death Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			15–19 years			20–24 years			25–29 years			30–34 years			35–39 years			40–44 years			45–49 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	31	9	40	–	–	–	2	–	2	–	–	–	5	2	7	2	1	3	2	4	6	1	1	2
With other forms of syphilis	2	3	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
With epidemic encephalitis	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
Alcoholic psychoses	5	1	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Due to drugs, etc.	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Traumatic psychoses	2	–	2	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	26	24	50	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other disturbances of circulation	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	1	1	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	15	38	53	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Involutional psychoses	3	6	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Due to other metabolic diseases, etc.	3	5	8	–	–	–	–	–	–	–	2	2	–	1	1	1	1	2	–	–	–	–	–	–
With organic changes of nervous system	2	3	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2
Psychoneuroses	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Manic-depressive psychoses	3	5	8	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	1	1	2
Dementia praecox	13	25	38	–	–	–	1	–	1	1	–	1	–	1	1	2	–	2	–	–	–	–	2	2
Paranoia and paranoid conditions	1	2	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With psychopathic personality	1	–	1	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With mental deficiency	1	4	5	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Total	113	127	240	1	–	1	4	–	4	1	4	5	6	4	10	5	4	9	2	5	7	3	5	8

TABLE 17. *Age of Patients at Time of Death Classified with Reference to Principal Psychoses* — Concluded

PSYCHOSES	50–54 years			55–59 years			60–64 years			65–69 years			70–74 years			75–79 years			80–84 years			85 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	7	–	7	7	1	8	4	–	4	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With other forms of syphilis	–	1	1	–	–	–	1	–	1	1	–	1	–	1	1	–	–	–	–	–	–	–	–	–
With epidemic encephalitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	–	–	–	–	–	–	1	–	1	2	–	2	1	–	1	1	–	1	–	1	1	–	–	–
Due to drugs, etc.	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Traumatic psychoses	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	1	1	2	2	–	2	4	6	10	3	3	6	6	7	13	6	2	8	3	4	7	1	1	2
With other disturbances of circulation	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	–	–	–	–	1	1	–	–	–	2	7	9	2	9	11	3	9	12	6	5	11	2	7	9
Involutional psychoses	2	2	4	–	2	2	1	1	2	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
Due to other metabolic diseases, etc.	–	–	–	1	1	2	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	1	–	1	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–	–	–	–	–	–	–
Psychoneuroses	–	–	–	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Manic-depressive psychoses	1	–	1	–	1	1	–	–	–	1	1	2	–	–	–	–	1	1	–	–	–	–	–	–
Dementia praecox	1	3	4	1	3	4	3	2	5	–	2	2	–	5	5	4	5	9	–	2	2	–	–	–
Paranoia and paranoid conditions	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	2	2	–	–	–	–	–	–
With psychopathic personality	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With mental deficiency	–	–	–	–	–	–	–	–	–	1	2	3	–	–	–	–	1	1	–	–	–	–	–	–
Total	14	7	21	12	9	21	17	9	26	12	16	28	10	23	33	14	20	34	9	13	22	3	8	11

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses*

PSYCHOSES	Total			Less than 1 month			1–3 months			4–7 months			8–12 months			1–2 years			3–4 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	31	9	40	3	1	4	4	–	4	3	1	4	2	–	2	8	5	13	5	2	7
With other forms of syphilis	2	3	5	–	–	–	1	–	1	1	–	1	–	–	–	–	1	1	–	1	1
With epidemic encephalitis	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	1	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	5	1	6	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–
Due to drugs, etc.	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Traumatic psychoses	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	26	24	50	4	5	9	10	5	15	5	3	8	2	2	4	3	3	6	2	2	4
With other disturbances of circulation	1	–	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Senile psychoses	15	38	53	2	10	12	1	8	9	2	1	3	3	3	6	3	8	11	2	1	3
Involutional psychoses	3	6	9	–	1	1	–	1	1	1	1	2	–	–	–	–	–	–	–	–	–
Due to other metabolic diseases, etc.	3	5	8	–	–	–	–	1	1	2	2	4	–	–	–	1	1	2	–	–	–
With organic changes of nervous system	2	3	5	–	–	–	–	1	1	1	–	1	–	–	–	–	1	1	1	1	2
Psychoneuroses	2	–	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Manic-depressive psychoses	3	5	8	–	–	–	–	–	–	–	–	–	–	1	1	1	1	2	1	1	2
Dementia praecox	13	25	38	–	1	1	–	–	–	–	–	–	–	–	–	2	1	3	1	1	2
Paranoia and paranoid conditions	1	2	3	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–
With psychopathic personality	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
With mental deficiency	1	4	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	137	127	240	10	18	28	16	17	33	17	8	25	8	6	14	20	21	41	13	10	23

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses* — Concluded

PSYCHOSES	5–6 years			7–8 years			9–10 years			11–12 years			13–14 years			15–19 years			20 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	1	–	1	3	–	3	1	–	1	–	–	–	–	–	–	1	–	1	–	–	–
With other forms of syphilis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
With epidemic encephalitis	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With other infectious diseases	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Alcoholic psychoses	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	1	–	1	2	1	3
Due to drugs, etc.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Traumatic psychoses	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With cerebral arteriosclerosis	–	–	–	–	–	–	–	1	1	–	–	–	–	1	1	–	2	2	–	–	–
With other disturbances of circulation	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With convulsive disorders (epilepsy)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Senile psychoses	1	2	3	–	2	2	–	–	–	–	–	–	–	2	2	–	–	–	1	1	2
Involutional psychoses	1	–	1	–	1	1	1	1	2	–	–	–	–	–	–	–	1	1	–	–	–
Due to other metabolic diseases etc.	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–
With organic changes of nervous system	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Psychoneuroses	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–
Manic-depressive psychoses	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Dementia praecox	–	1	1	–	–	–	–	2	2	2	–	2	1	2	3	2	7	9	5	10	15
Paranoia and paranoid conditions	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	1	1
With psychopathic personality	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
With mental deficiency	–	1	1	–	–	–	–	1	1	1	1	2	–	–	–	–	–	–	–	1	1
Total	4	4	8	5	4	9	2	7	9	4	1	5	1	5	6	5	10	15	8	16	24

TABLE 19. *Average Length of Hospital Residence during the Present Admission of All First Admissions in Residence on September 30, 1935*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	65	23	88	5.33	7.31	5.84
With other forms of syphilis	4	7	11	4.00	4.77	4.49
With epidemic encephalitis	8	6	14	5.33	8.33	6.60
With other infectious diseases	1	1	2	7.50	7.50	7.50
Alcoholic psychoses	101	7	108	9.56	8.34	9.48
Due to drugs, etc.	2	–	2	.97	–	.97
Traumatic psychoses	2	1	3	2.00	7.50	3.83
With cerebral arteriosclerosis	54	42	96	2.88	4.19	3.46
With other disturbances of circulation	2	–	2	.45	–	.45
With convulsive disorders (epilepsy)	5	6	11	13.40	4.49	8.54
Senile psychoses	22	53	75	3.29	3.65	3.54
Involutional psychoses	16	26	42	5.72	7.14	6.60
Due to other metabolic diseases, etc.	8	4	12	2.45	5.48	3.48
With organic changes of nervous system	10	3	13	4.38	3.15	4.10
Psychoneuroses	7	12	19	1.47	3.55	2.78
Manic-depressive psychoses	19	18	37	5.95	4.98	5.48
Dementia praecox	314	330	644	12.90	11.65	12.26
Paranoia and paranoid conditions	21	48	69	6.47	9.26	8.41
With psychopathic personality	10	9	19	8.48	10.27	9.33
With mental deficiency	45	52	97	9.00	8.82	8.90
Without psychoses	6	4	10	4.30	.97	2.97
Total	722	652	1,374	9.22	9 07	9.15

TABLE 19A. *Average Length of Hospital Residence during the Present Admission of All Readmissions in Residence on September 30, 1935*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	33	6	39	4.17	5.50	4.37
With other forms of syphilis	3	–	3	8.83	–	8.83
With epidemic encephalitis	2	1	3	2.00	3.50	2.50
With other infectious diseases	–	1	1	–	1.50	1.50
Alcoholic psychoses	43	6	49	9.60	10.50	9.71
Due to drugs, etc.	–	1	1	–	22.50	22.50
Traumatic psychoses	3	–	3	7.83	–	7.83
With cerebral arteriosclerosis	14	7	21	4.13	4.63	4.30
With other disturbances of circulation	–	1	1	–	.45	.45
With convulsive disorders (epilepsy)	5	2	7	7.90	9.50	8.35
Senile psychoses	6	15	21	4.82	4.08	4.29
Involutional psychoses	5	6	11	7.09	14.33	11.04
Due to other metabolic diseases, etc.	–	1	1	–	7.50	7.50
With organic changes of nervous system	2	6	8	5.00	1.47	2.35
Psychoneuroses	4	5	9	6.25	4.89	5.49
Manic-depressive psychoses	33	41	74	6.39	8.70	7.67
Dementia praecox	188	308	496	10.48	10.59	10.55
Paranoia and paranoid conditions	9	26	35	8.83	7.18	7.60
With psychopathic personality	3	6	9	11.50	4.65	6.93
With mental deficiency	27	28	55	11.64	10.00	10.80
Undiagnosed psychoses	1	–	1	.45	–	.45
Without psychoses	2	2	4	6.47	.45	3.46
Total	383	469	852	8.94	9.55	9.27

TABLE 20. *Family Care Statistics for Year Ended September 30, 1935*

	Males	Females	Total
Remaining in Family Care September 30, 1934	20	73	93
On Visit from Family Care September 30, 1934	3	23	26
Admitted to Family Care during the year	20	82	102
Whole Number of Cases within the year	40	155	195
Discharged from Family Care within the year	17	75	92
Died	–	1	1
Discharged	2	4	6
From Family Care to Escape Status	–	3	3
From Family Care to Visit Status	5	20	25
Returned to Institution	10	47	57
Returned to Institution from Escape	–	1	1
Returned to Institution from Visit	1	7	8
Remaining in Family Care September 30, 1935	23	80	103
On Visit from Family Care September 30, 1935	3	23	26
Average Daily Number in Family Care during year	23	75	98
Supported by State	18	62	80
Private	5	18	23